Fire

Commissioner's Statistical Report

LABOUR
General Safety
Services Division
Fire Prevention Branch

1 9 8 6

Alberta Labour
Mailing Address
10808 - 99 Avenue
Edmonton, Alberta
T5K 0G5

Enquiries
Telephone (403)427-8392

Additional copies of this report
may be obtained from:
Fire Prevention Branch
Alberta Labour
Room 701, 10808 - 99 Avenue
Edmonton, Alberta
T5K 0G5

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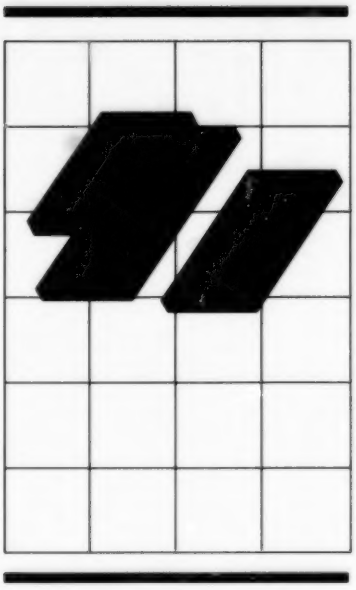


Introduction

Fire Commissioner's
Statistical Report

1 9 8 6

67th Statistical Report of the Fire Commissioner

Fire Commissioner – W. D. MacKay

The Fire Prevention Branch promotes and supports fire protection in Alberta. Fire protection means all aspects of fire safety including fire prevention, suppression investigation, public education and information, training and advising. The Branch's goal of complying with that meaning is met through a number of programs. These include the prevention of fires through public education, technical advisory services, fire safety inspections for existing buildings, the collection and dissemination of fire loss data and arson prevention education. Training in all aspects of fire protection is available to municipal and industrial fire departments through field staff located in regional offices throughout the province and the Alberta Fire Training School at Vermilion.

While onsite courses at the Alberta Fire Training School dropped slightly to 823 man weeks, regional and local training brought the total municipal fire department training up 15% to 1,588 man weeks. The school's training of industrial personnel dropped 20% to 477 man weeks. This drop seems to have been caused by staff and budget reductions throughout industry.

Fire losses for 1986 were down for the fifth straight year, however, incendiary fires rose to 12% of the losses. Fire deaths in residential property rose after having decreased steadily since 1982. The rise was due to an increase of fire deaths in mobile home residences. Improper disposal of smoker's material was the cause of just over 41% of the fire deaths.

A total of 1,113 detailed fire investigations were conducted by Branch staff, police and fire departments. This is an increase of 17% over last year. This type of investigation is usually carried out when a death occurs as a result of a fire, when arson is suspected, when the cause of the fire is not known or when a major fire loss occurs. A total of 378 investigations were conducted by Branch staff. The number of fires determined to be caused by arson rose by 29% to 826. This implies the need for continued strong effort to determine accurately the cause of all fires.

The Branch received accreditation from the National Professional Qualifications Board of the Joint Council of National Fire Service Organizations. This accreditation authorizes the Branch to certify firefighters, fire service instructors and fire officers from Alberta who meet the training standards established in accordance with the professional qualification standards for fire department personnel published by the National Fire Protection Association.

A joint study was completed by the Branch and Alberta Housing on fire safety in single family dwellings. The study recommends increased use of smoke detector/alarms in single family dwellings and the installation of quick acting residential sprinkler systems in one and two family dwellings constructed in the future.

The Alberta Fire Prevention Council, in its fourth year of operation, effectively carried out its responsibilities as an advisory board to the Minister of Labour and as an appeal board. In addition to hearing 69 appeals of orders issued pursuant to Section 12 of the Fire Prevention Act, the Council, for the first time since being established, reviewed five applications under the authority vested in it by Section 4 of the Alberta Fire Code. Eleven of the Orders appealed were revoked, 15 were upheld and 43 were varied. Another 10 appeals were filed but were all withdrawn for various reasons. The Council only approved two of the five applications reviewed under Section 4 of the Alberta Fire Code.

Other activities performed by the Council were:

(a) review of 37 proposed amendments to the Alberta Fire Code;
(b) review and comments on 87 proposed amendments to the National Building and Fire Codes;
(c) review of and recommend amendments to the Alberta Uniform Building Standards Act;
(d) discussion and comments on the application made by fire alarm technicians, to the Department of Career Development and Employment for trade certification;
(e) distribution of a summary report of its activities to all fire departments in the province, and;
(f) further promotion of the role of the fire prevention officer in smaller communities.

As of March 31, 1987 the membership of the Council consisted of ten members:

Martin Chapman – Acting Chairman

Harry Dowhan	Donald Goedbloed
Jack Edworthy	Wayne G. Stanyer
Malcolm Faille	Allen Stephanson
Roger Field	Albert Wagner
Douglas Kometz	

The 11th position on the Council was left vacant by the retirement of James Morrison and was not filled by year's end.

Comparative Statistical Summary

for the three years ending March 31, 1985, 1986 and 1987

A. Fire Prevention	1984-85 No.	1985-86 No.	1986-87 No.
Building fire inspections conducted	2,930	2,641	2,939
- recommendations issued to correct hazards	10,654	8,793	10,261
- orders issued*	16	13	74
Plans examined	455	282	208
Meetings and lectures conducted	1,244	1,588	1,626
- attendance	12,798	19,056	20,390
Fire Prevention Council Appeal Hearings	7	39	69

B. Fire Investigation			
Investigations conducted by Branch	286	319	378
Investigations by other agencies	616	657	735
Total	**902**	**976**	**1,113**
Causes of Fires Investigated			
- arson	649	642	826
- accidental or unknown	251	326	283
- under investigation	2	8	4
Total	**902**	**976**	**1,113**

C. Fire Service Personnel Training		Attendance		
Alberta Fire Training School Municipal Training Programs				
Course Title (Duration 44 hrs.)	Part I Firefighter	146	154	130
	Part II Firefighter	113	125	98
	Part III Firefighter	48	43	40
	Part IV Firefighter	41	37	31
	Part V Firefighter	38	40	34
	Part VI Firefighter	31	20	21
	Pump Operator "A"	109	111	90
	Pump Operator "B"	11	22	29
	Fire Prevention for the Firefighter	19	18	20
	Vehicle Extrication & Trench Rescue	20	20	20
	Fire Officer C1, Building Construction	16	20	16
	Fire Officer C2, Leadership	11	20	17
	Fire Officer C3, Pre-fire Planning	14	18	10
	Fire Officer C4, Fire Suppression and Safety	8	17	11
	Fire Officer C5, Strategy and Tactics (Theory)	31	18	39
	Fire Officer C6, Strategy and Tactics (Practical)	—	12	13
	Fire Officer C7, Fire Investigation	21	20	18
	Fire Officer C8, Fire Prevention - Fire Protection Equipment	14	14	8
	Fire Officer C9, Fire Prevention	6	17	11
	Fire Officer C12, Technical Writing Skills	—	—	32**
	Fire Officer C15, Public Relations and Public Speaking	—	—	32**
	Fire Prevention Officer DA, Building Codes & Standards	18	18	17
	Fire Prevention Officer DB, Alberta Fire Code	17	19	21
	Fire Prevention Officer D1, Water Supply	7	8	10
	Fire Prevention Officer D2, Standpipe and Sprinkler Systems	8	11	10
	Fire Services Instructor E1	18	20	24
	Fire Services Instructor E2	—	13	12
	Fire Services Instructor E3	—	—	9**
	Total Municipal Fire Department Personnel Attending A.F.T.S.	**765**	**835**	**823**

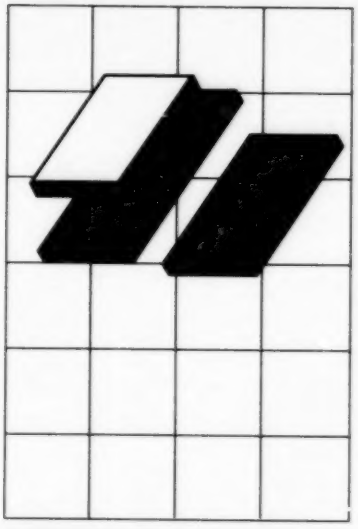
Comparative Statistical Summary (cont'd)

for the three years ending March 31, 1985, 1986 and 1987

	1984-85 No.	1985-86 No.	1986-87 No.
C. Fire Service Personnel Training (Cont.)	**Attendance**		
Extension Courses - Municipal Presentation			
Course Title (Duration 44 hrs.) Part I Firefighter	295	266	319
Part II Firefighter	79	48	104
Pump Operator "A"	—	5	42
Fire Prevention for the Firefighter	35	24	32
Fire Officer C2, Leadership	14	—	44
Fire Officer C5, Strategy and Tactics (Theory)	—	00	19
Fire Officer C7, Fire Investigation	22	20	93
Fire Officer C9, Fire Prevention	—	23	9
Fire Officer C12, Technical Writing Skills	—	00	32
Fire Service Instructor E1	14	48	—
Fire Prevention Officer DA, Building Codes & Standards	—	50	—
Fire Prevention Officer DB, Alberta Fire Code	—	57	12
Fire Prevention Officer D2, Sprinkler & Standpipe Systems	—	—	59
Personnel Attending A.F.T.S. Sponsored Extension and Local Courses	459	541	765
Total Municipal Fire Department Personnel	**1,224**	**1,376**	**1,588**
Industrial Programs			
Course Title (Duration as indicated)			
Part I Industrial Firefighter (16 hrs.)	181	195	138
Part IA Industrial Firefighter (8 hrs.)	144	149	104
Part IB Industrial Firefighter (16 hrs.)	—	23	58
Part II Industrial Firefighter (16 hrs.)	166	140	104
Part III Industrial Firefighter (16 hrs.)	134	89	62
Aircraft Crash/Fire Response - Dry Chemical	12	—	11
Total Industrial Fire Department Personnel	**637**	**596**	**477**
Grand Total Attendance at A.F.T.S.			
Sponsored Courses	1,861	1,972	2,065
One-day Seminars	128	43	45
Two-day Seminars	—	—	21

* Previous reports listed only the number of orders issued by the Branch
** These courses were offered for the first time in 1986/87

SECTION 1



Alberta Fire Casualties

Fire Commissioner's
Statistical Report

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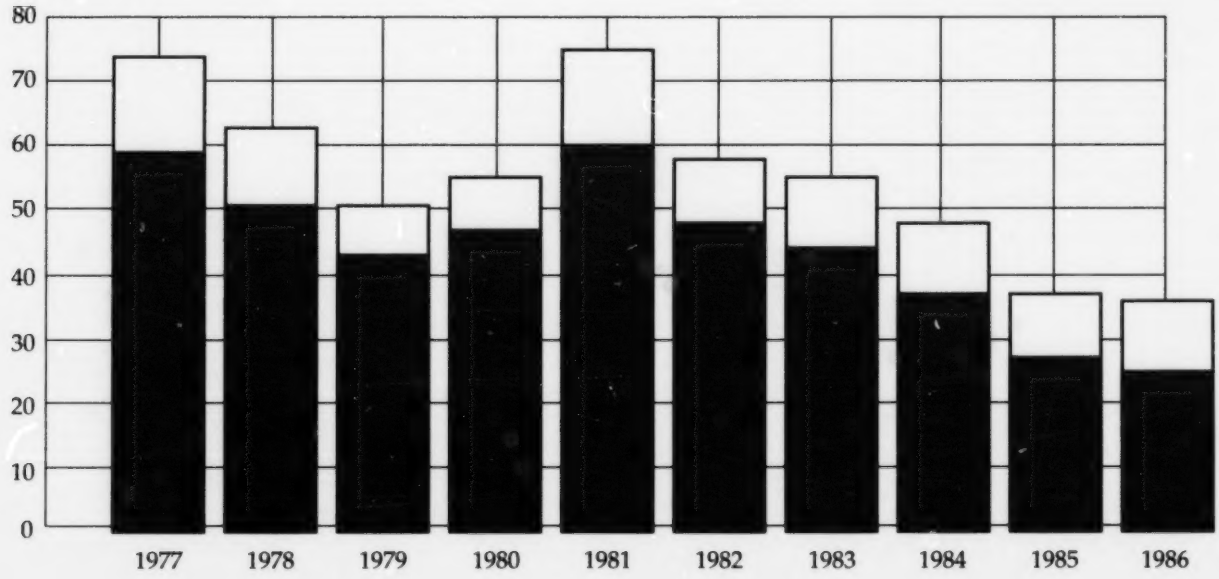
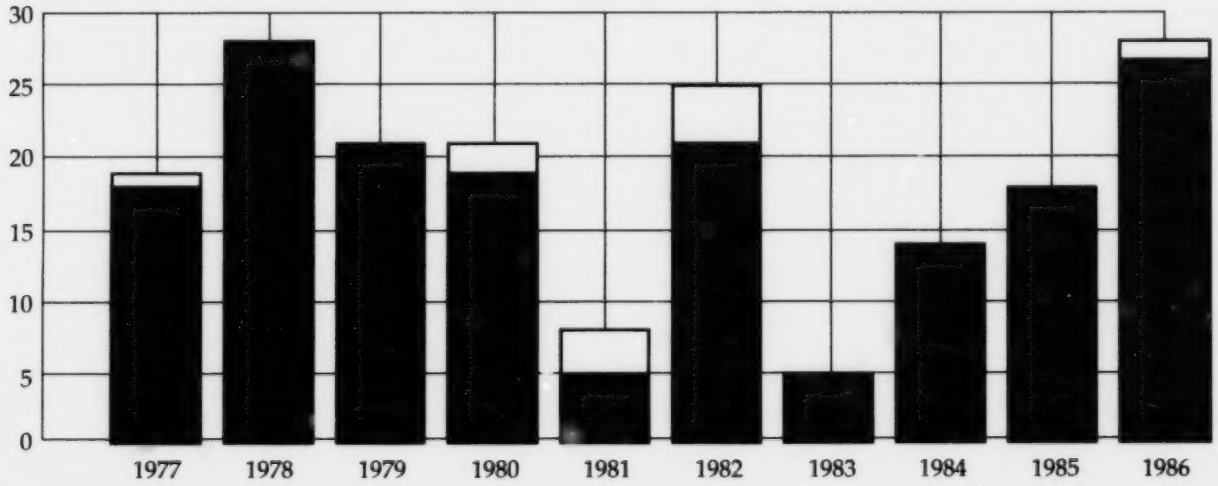
Fire Deaths 1977-1986



Deaths Involving Fire 1977-1986

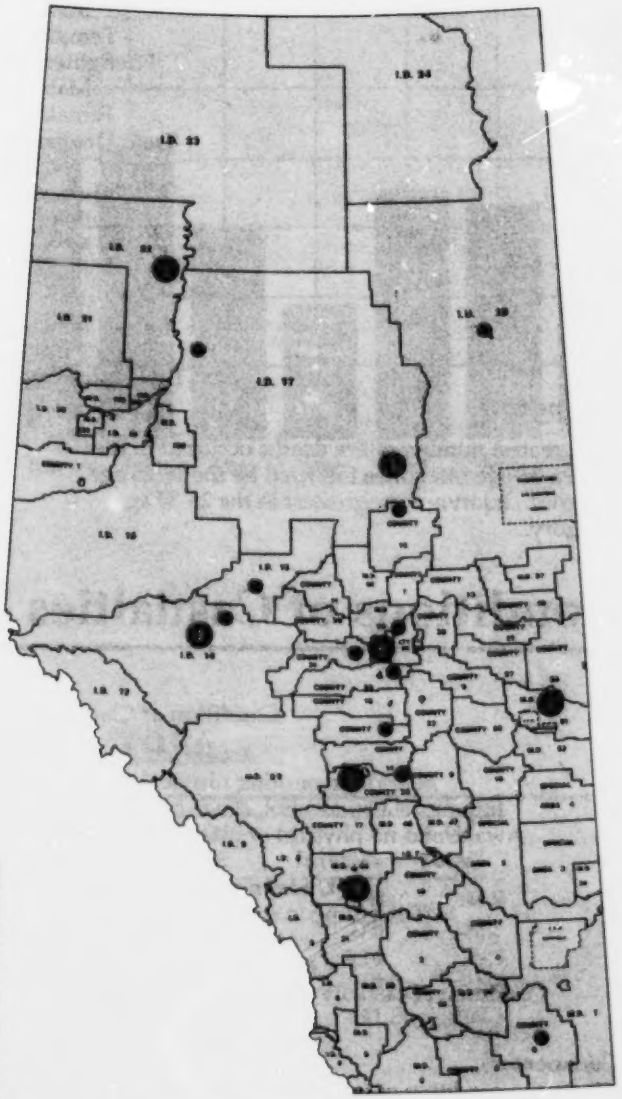


Commentary

Fire deaths refer to persons who died directly as a result of a fire, either by smoke inhalation or burns. Deaths involving fire refer to persons who were in a place where a fire occurred, but who may have died from a cause other than the fire itself (e.g. a person who dies in an automobile accident where the vehicle catches fire, a suicide, a death in an arson fire).

Fire Deaths by Geographic Location – 1986

- Represents One Death
- Represents Specified Number of Deaths



Death Rates

Year	Population	Fire Deaths	Other Deaths Involving Fire	Total Deaths	Fire Death Rate*	Fire Death Rate*
1977	1,894,000	74	19	93	3.9	3.5
1978	1,954,000	63	28	91	3.2	3.6
1979	2,014,000	51	21	72	2.5	3.1
1980	2,146,000	55	21	76	2.6	3.4
1981	2,278,000	75	8	83	3.3	2.9
1982	2,332,000	58	25	83	2.5	2.7
1983	2,336,000	55	5	60	2.4	2.2
1984	2,346,000	48	14	62	2.0	1.9
1985	2,318,000	37	18	55	1.6	1.7
1986	2,399,000	36	28	64	1.5	N/A
		Alberta				Canada

*Deaths per 100,000 population

Casualties by Age and Sex – 1986

Casualty	Age in Years									
	0-5	6-15	16-25	26-35	36-45	46-55	56-65	Over 65	Unknown	Total
Fire Deaths										
Civilian:										
Male	6	1	4	5	1	2	2	2	0	23
Female	3	1	1	4	2	0	1	1	0	13
Firefighter:										
Male	0	0	0	0	0	0	0	0	0	0
Female	0	0	0	0	0	0	0	0	0	0
Total Deaths	**9**	**2**	**5**	**9**	**3**	**2**	**3**	**3**	**0**	**36**
Injuries										
Civilian:										
Male	9	17	47	56	40	19	18	4	46	256
Female	6	8	21	12	11	7	10	7	4	86
Firefighter:										
Male	0	0	2	33	43	14	2	0	5	99
Female	0	0	0	0	0	0	0	0	0	0
Total Injuries	**15**	**25**	**70**	**101**	**94**	**40**	**30**	**11**	**55**	**441**

Commentary

The greatest number of fire deaths occurred in the 0-5 and 26-35 age categories followed by the 16-25 age category. Injuries were greatest in the 26-35 age category.

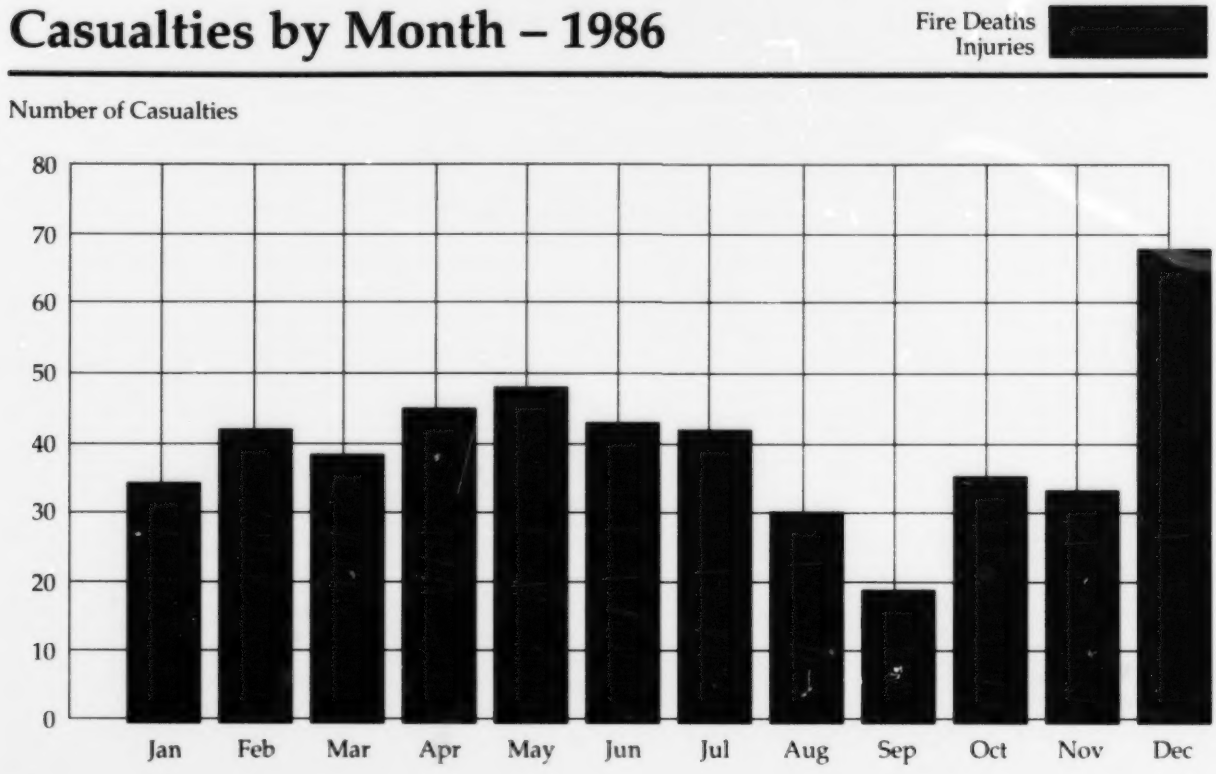
Conditions of Casualties – 1986

Condition of Casualty	Fire Deaths	% Of Total	Injuries	% Of Total
Asleep at time of fire	15	41.7	61	13.8
Bedridden or other physical handicap	1	2.8	0	—
Impairment by alcohol, drugs or medication	6	16.7	16	3.6
Awake and no physical or mental impairment at the time of fire	4	11.1	331	75.1
Under restraint or detention	0	—	0	—
Too young to react to fire emergency	4	11.1	13	2.9
Mental handicap (senile)	0	—	0	—
Left unattended (children)	0	—	3	.7
Condition of casualty - unclassified or unknown	6	16.7	17	3.9
Total	**36**	**100.1**	**441**	**100.0**

Commentary

Where the condition of the victim was known in a fatal fire, the victim was usually asleep at the time of fire or impaired by alcohol, drugs or medication. The most common known factor for the injured victim was that he was awake and had no physical or mental impairment at the time of fire.

Casualties by Month – 1986



Commentary
The number of fire deaths per month is highest in the month of January. December recorded the highest number of injuries.

Casualties by Time Period – 1986

Time Period	Fire Deaths	% Of Total	Injuries	% Of Total
6:31 a.m. - 2:30 p.m.	17	47.2	150	34.0
2:31 p.m. - 10:30 p.m.	7	19.4	170	38.5
10:31 p.m. - 6:30 a.m.	12	33.3	114	25.9
Unknown	0	—	7	1.6
Total	**36**	**99.9**	**441**	**100.1**

Commentary
The percentage number of deaths between 2:31 p.m. and 10:30 p.m. was significantly lower than the other two time periods; however, the percentage number of injuries was highest at this time.

Fire Deaths by Major Property Classifications – 1986

Property Classification		Fire Deaths	% Of Total	Deaths Involving Fire	% Of Total
Assembly					
	Theatre, Studio, Auditorium	0	—	0	—
	Amusement, Recreation Place	0	—	0	—
	School, College, University	0	—	0	—
	Church, Funeral Parlour	0	—	0	—
	Clubs, Social, Sport	0	—	0	—
	Museum, Art Gallery, Library	0	—	0	—
	Food or Beverage Establishment	0	—	0	—
	Passenger Terminal, Station	0	—	0	—
	Miscellaneous	0	—	0	—
	Sub-Total	**0**	**—**	**0**	**—**
Institutional					
	Prison, Jail, Reformatory	0	—	0	—
	Home for the Aged	0	—	0	—
	Child Care	0	—	0	—
	Hospital, Sanatorium, Clinic	0	—	0	—
	Miscellaneous	0	—	0	—
	Sub-Total	**0**	**—**	**0**	**—**
Residential					
	One and Two Family Dwellings	19	52.8	8	28.6
	Apartment	6	16.7	0	—
	Rooming, Boarding House	0	—	0	—
	Hotel	0	—	0	—
	Motor Hotel	1	2.8	0	—
	Dormitory	0	—	1	3.6
	Mobile Home	8	22.2	0	—
	Miscellaneous	0	—	0	—
	Sub-Total	**34**	**94.5**	**9**	**32.2**
Business and Personal Service					
	Office	0	—	0	—
	Personal Service	0	—	0	—
	Electronic Equipment	0	—	0	—
	Miscellaneous	0	—	0	—
	Sub-Total	**0**	**—**	**0**	**—**
Mercantile					
	Food, Beverage Sale	0	—	0	—
	Textile, Wearing Apparel Sale	0	—	0	—
	Furniture, Appliance, Hardware Sales	0	—	0	—
	Books, Newspapers, Drugs, Specialties	0	—	0	—
	Recreation, Hobby Supplies	0	—	0	—
	Repair Shop, Laundry, Dry Cleaner	0	—	0	—
	Motor Vehicles, Boats, Sales and Service	0	—	0	—
	Department, Variety Store	0	—	0	—
	Miscellaneous	0	—	0	—

Fire Deaths by Major Property Classifications – 1986 (cont'd)

Property Classification	Fire Deaths	% Of Total	Deaths Involving Fire	% Of Total
Sub-Total	**0**	**—**	**0**	**—**
Industrial Manufacturing Properties				
Chemicals, Petroleum, Paints, Plastics	0	—	0	—
Wood, Furniture, Paper, Printing	0	—	0	—
Metal, Metal Products, Electrical Equipment and Appliances	0	—	0	—
Food Processing	0	—	0	—
Beverage, Tobacco, Soap, Margarine	0	—	0	—
Textiles	0	—	0	—
Wearing Apparel, Footwear	0	—	0	—
Vehicles and Related Equipment	0	—	0	—
Miscellaneous	0	—	0	—
Sub-Total	**0**	**—**	**0**	**—**
Storage Properties				
Agricultural Products	0	—	0	—
Textiles, Fibres, Clothing	0	—	0	—
Processed Food, Beverage	0	—	0	—
Flammable Liquids, Gases, Petroleum Products	0	—	2	7.1
Wood, Furniture, Paper and Products	0	—	0	—
Chemicals, Plastics, Paints	0	—	0	—
Metal Products, Machinery, Electrical Appliance	0	—	0	—
Vehicle	0	—	0	—
Miscellaneous	0	—	0	—
Sub-Total	**0**	**—**	**2**	**7.1**
Special Property - Transportation Equipment				
Outdoor Property	2	5.6	0	—
Special Connecting Thoroughfares	0	—	0	—
Under Construction/Demolition: Vacant	0	—	0	—
Watercraft	0	—	0	—
Rail Transport Vehicle and Equipment	0	—	1	3.6
Ground Transport Vehicle	0	—	13	46.4
Aircraft	0	—	0	—
Special Vehicles	0	—	0	—
Other Special Property	0	—	0	—
Sub-Total	**2**	**5.6**	**14**	**50.0**
Miscellaneous Property				
Laboratories	0	—	0	—
Farm Facilities	0	—	0	—
Miscellaneous Outbuildings	0	—	0	—
Utility	0	—	1	3.6
Cement, Glass, Pottery Manufacturing	0	—	0	—
Mining, Quarrying	0	—	2	7.1
Communications	0	—	0	—
Nucleonics	0	—	0	—
Miscellaneous	0	—	0	—
Sub-Total	**0**	**—**	**3**	**10.7**
Total	**36**	**100.1**	**28**	**100.0**

Commentary

95% of fire deaths occurred in residential properties.

Injuries by Major Property Classifications – 1986

Property Classification	Minor Injuries	Light Injuries	Serious Injuries	Total Injuries	% Of Total
Assembly					
Theatre, Studio, Auditorium	0	0	0	0	—
Amusement, Recreation Place	0	0	0	0	—
School, College, University	3	6	0	9	2.0
Church, Funeral Parlour	1	0	0	1	.2
Clubs, Social, Sport	0	0	0	0	—
Museum, Art Gallery, Library	0	0	0	0	—
Food or Beverage Establishment	1	2	1	4	.9
Passenger Terminal, Station	0	0	0	0	—
Miscellaneous	0	0	0	0	—
Sub-Total	**5**	**8**	**1**	**14**	**3.1**
Institutional					
Prison, Jail, Reformatory	0	0	0	0	—
Home for the Aged	0	1	0	1	.2
Child Care	1	0	0	1	.2
Hospital, Sanatorium, Clinic	0	1	0	1	.2
Miscellaneous	0	0	0	0	—
Sub-Total	**1**	**2**	**0**	**3**	**.6**
Residential					
One and Two Family Dwellings	73	52	8	133	30.2
Apartment	62	23	5	90	20.4
Rooming, Boarding House	2	0	0	2	.5
Hotel	1	1	0	2	.5
Motor Hotel	0	0	0	0	—
Dormitory	1	0	3	4	.9
Mobile Home	5	7	5	17	3.9
Miscellaneous	0	0	0	0	—
Sub-Total	**144**	**83**	**21**	**248**	**56.4**
Business and Personal Service					
Office	2	0	0	2	.5
Personal Service	0	0	0	0	—
Electronic Equipment	0	0	0	0	—
Miscellaneous	0	0	0	0	—
Sub-Total	**2**	**0**	**0**	**2**	**.5**
Mercantile					
Food, Beverage Sale	1	0	2	3	.7
Textile, Wearing Apparel Sale	0	0	0	0	—
Furniture, Appliance, Hardware Sales	0	0	0	0	—
Books, Newspapers, Drugs, Specialties	0	1	0	1	.2
Recreation, Hobby Supplies	0	0	0	0	—
Repair Shop, Laundry, Dry Cleaner	0	1	1	2	.5
Motor Vehicles, Boats, Sales and Service	3	8	1	12	2.7
Department, Variety Store	0	0	0	0	—
Miscellaneous	0	0	0	0	—
Sub-Total	**4**	**10**	**4**	**18**	**4.1**

Injuries by Major Property Classifications – 1986 (cont'd)

Property Classification	Minor Injuries	Light Injuries	Serious Injuries	Total Injuries	% Of Total
Industrial Manufacturing Properties					
Chemicals, Petroleum, Paints, Plastics	1	0	0	1	.2
Wood, Furniture, Paper, Printing	0	0	0	0	—
Metal, Metal Products, Electrical Equipment and Appliances	0	2	1	3	.7
Food Processing	0	0	0	0	—
Beverage, Tobacco, Soap, Margarine	0	0	0	0	—
Textiles	0	0	0	0	—
Wearing Apparel, Footwear	0	0	0	0	—
Vehicles and Related Equipment	0	0	0	0	—
Miscellaneous	0	0	0	0	—
Sub-Total	**1**	**2**	**1**	**4**	**.9**
Storage Properties					
Agricultural Products	0	0	3	3	.7
Textiles, Fibres, Clothing	0	0	0	0	—
Processed Food, Beverage	1	0	0	1	.2
Flammable Liquids, Gases, Petroleum Products	0	1	3	4	.9
Wood, Furniture, Paper and Products	0	0	0	0	—
Chemicals, Plastics, Paints	0	0	0	0	—
Metal Products, Machinery, Electrical Appliance	0	1	0	1	.2
Vehicle	8	4	2	14	3.2
Miscellaneous	3	0	0	3	.7
Sub-Total	**12**	**6**	**8**	**26**	**5.9**
Special Property					
Outdoor Property	11	5	3	19	4.3
Special Connecting Thoroughfares	0	0	0	0	—
Under Construction/Demolition: Vacant	4	24	0	28	6.3
Watercraft	0	0	0	0	—
Rail Transport Vehicle and Equipment	0	0	5	5	1.1
Ground Transport Vehicle	23	7	2	32	7.3
Aircraft	1	0	0	1	.2
Special Vehicles	1	3	1	5	1.1
Other Special Property	0	0	0	0	—
Sub-Total	**40**	**39**	**11**	**90**	**20.3**
Miscellaneous Property					
Laboratories	0	0	0	0	—
Farm Facilities	2	0	0	2	.5
Miscellaneous Outbuildings	6	1	0	7	1.6
Utility	0	0	5	5	1.1
Cement, Glass, Pottery Manufacturing	0	0	0	0	—
Mining, Quarrying	7	1	13	21	4.8
Communications	0	0	0	0	—
Nucleonics	0	0	0	0	—
Miscellaneous	0	0	1	1	.2
Sub-Total	**15**	**2**	**19**	**36**	**8.2**
Total	**224**	**152**	**65**	**441**	**100.0**

Commentary

56% of injuries occurred in residential properties.

Fire Deaths by Act or Omission – 1986

Act or Omission	Fire Deaths	% Of Total	Deaths Involving Fire	% Of Total
Incendiary				
Arson – for fraudulent purposes	0	—	0	—
Arson – for vengeful/spiteful purposes	0	—	1	3.6
Arson – for obscuring other crime	0	—	0	—
Arson – to satisfy compulsive desires (pyromania)	0	—	0	—
Suspected Arson	0	—	0	—
Riot, Civil Commotion, Charges Laid	0	—	0	—
Riot, Civil Commotion, No Charges Laid	0	—	0	—
Vandalism, Mischief, Charges Laid	0	—	0	—
Vandalism, Mischief, No Charges Laid	0	—	0	—
Incendiary, Unclassified	0	—	2	7.1
Sub-Total	**0**	**—**	**3**	**10.7**
Misuse of Source of Ignition				
Smoker's Material	15	41.7	0	—
Thawing	0	—	0	—
Inadequate Control of "Open" Fire	0	—	0	—
Child Playing With	5	13.9	0	—
Welding or Cutting Too Close To	0	—	3	10.7
Torch Too Close To	0	—	0	—
Misuse of Source of Ignition, Unclassified	0	—	0	—
Sub-Total	**20**	**55.6**	**3**	**10.7**
Misuse of Material Ignited				
Fuel Spilled Accidentally	0	—	0	—
Improper Fuelling Technique	0	—	0	—
Flammable Liquid to Kindle Fire	0	—	0	—
Cleaning, Washing Parts	0	—	0	—
Improper Container	0	—	0	—
Overheated Cooking Oil, Grease, Wax	1	2.8	0	—
Combustible Placed Too Close to Heat	3	8.3	0	—
Improper Storage	0	—	0	—
Misuse of Material Ignited, Unclassified	0	—	0	—
Sub-Total	**4**	**11.1**	**0**	**—**
Mechanical, Electrical Failure, Malfunction				
Part Failure, Leak, Break	0	—	1	3.6
Automatic Control Failure	0	—	0	—
Manual Control Failure	0	—	0	—
Electrical Short Circuit	0	—	0	—
Part Worn Out	0	—	0	—
Mechanical, Electrical Failure, Unclassified	1	2.8	0	—
Sub-Total	**1**	**2.8**	**1**	**3.6**

Fire Deaths by Act or Omission – 1986 (cont'd)

Act or Omission	Fire Deaths	% Of Total	Deaths Involving Fire	% Of Total
Construction, Design or Installation Deficiency				
Design Deficiency	0	—	0	—
Construction Deficiency	0	—	0	—
Installed Too Close to Combustible	1	2.8	0	—
Other Installation Deficiency	0	—	0	—
Over Fusing	0	—	0	—
Suspected Faulty Connections/Aluminum Wiring	0	—	0	—
Suspected Faulty Connections/Copper Wiring	0	—	0	—
Construction, Design or Installation Deficiency, Unclassified	0	—	0	—
Sub-Total	**1**	**2.8**	**0**	**—**
Misuse of Equipment				
Overfuelling	0	—	0	—
Misuse of Equipment, Unclassified	0	—	0	—
Sub-Total	**0**	**—**	**0**	**—**
Human Failing				
Asleep	1	2.8	0	—
Temporary Loss of Judgement	0	—	0	—
Physical or Mental Disability	0	—	0	—
Accident	0	—	0	—
Suspected Impairment by Alcohol, Drugs, Medication	1	2.8	0	—
Asleep - Suspected Use of Alcohol, Drugs, Medication	1	2.8	0	—
Ignorance of Hazard	0	—	3	10.7
Distracted, Preoccupied	0	—	0	—
Human Failing, Unclassified	1	2.8	0	—
Sub-Total	**4**	**11.1**	**3**	**10.7**
Vehicle Accident				
Automobile	0	—	10	35.7
Industrial Truck	0	—	1	3.6
Other Road Vehicle	0	—	1	3.6
Rail Vehicle	0	—	1	3.6
Watercraft	0	—	0	—
Aircraft	0	—	0	—
Vehicle Accident, Unclassified	0	—	0	—
Sub-Total	**0**	**—**	**13**	**46.4**
Miscellaneous				
Miscellaneous, Unclassified	0	—	2	7.1
Act or Omission - Cannot be Determined	6	16.7	3	10.7
Sub-Total	**6**	**16.7**	**5**	**17.9**
Total	**36**	**100.1**	**28**	**100.0**

Commentary
Improper disposal of smoker's material was the leading cause of fatal fires.

Injuries by Act or Omission – 1986

Act or Omission	Minor Injuries	Light Injuries	Serious Injuries	Total Injuries	% Of Total
Incendiary					
Arson – for fraudulent purposes	0	0	0	0	—
Arson – for vengeful/spiteful purposes	2	0	0	2	.5
Arson – for obscuring other crime	0	1	0	1	.2
Arson – to satisfy compulsive desires (pyromania)	0	0	0	0	—
Suspected Arson	3	18	0	21	4.8
Riot, Civil Commotion, Charges Laid	0	0	0	0	—
Riot, Civil Commotion, No Charges Laid	0	0	0	0	—
Vandalism, Mischief, Charges Laid	0	2	0	2	.5
Vandalism, Mischief, No Charges Laid	4	0	0	4	.9
Incendiary, Unclassified	4	6	1	11	2.5
Sub-Total	**13**	**27**	**1**	**41**	**9.3**
Misuse of Source of Ignition					
Smoker's Material	22	10	2	34	7.7
Thawing	1	0	2	3	.7
Inadequate Control of "Open" Fire	0	1	0	1	.2
Child Playing With	33	22	2	57	12.9
Welding or Cutting Too Close To	3	7	8	18	4.1
Torch Too Close To	4	0	0	4	.9
Misuse of Source of Ignition, Unclassified	0	0	0	0	—
Sub-Total	**63**	**40**	**14**	**117**	**26.5**
Misuse of Material Ignited					
Fuel Spilled Accidentally	5	7	9	21	4.8
Improper Fuelling Technique	3	2	2	7	1.6
Flammable Liquid to Kindle Fire	0	4	0	4	.9
Cleaning, Washing Parts	7	2	1	10	2.3
Improper Container	0	2	0	2	.5
Overheated Cooking Oil, Grease, Wax	18	10	1	29	6.6
Combustible Placed Too Close to Heat	3	0	1	4	.9
Improper Storage	2	0	0	2	.5
Misuse of Material Ignited, Unclassified	0	0	0	0	—
Sub-Total	**38**	**27**	**14**	**79**	**17.9**
Mechanical, Electrical Failure, Malfunction					
Part Failure, Leak, Break	9	5	8	22	5.0
Automatic Control Failure	0	0	0	0	—
Manual Control Failure	0	0	0	0	—
Electrical Short Circuit	10	2	1	13	2.9
Part Worn Out	0	1	0	1	.2
Mechanical, Electrical Failure, Unclassified	4	5	1	10	2.3
Sub-Total	**23**	**13**	**10**	**46**	**10.4**
Construction, Design or Installation Deficiency					
Design Deficiency	0	0	0	0	—
Construction Deficiency	0	0	0	0	—
Installed Too Close to Combustible	1	0	0	1	.2
Other Installation Deficiency	0	1	0	1	.2
Over Fusing	0	0	0	0	—
Suspected Faulty Connections/Aluminum Wiring	0	0	0	0	—
Suspected Faulty Connections/Copper Wiring	0	0	0	0	—
Construction, Design or Installation Deficiency, Unclassified	0	0	0	0	—
Sub-Total	**1**	**1**	**0**	**2**	**.4**

Injuries by Act or Omission – 1986 (cont'd)

Act or Omission	Minor Injuries	Light Injuries	Serious Injuries	Total Injuries	% Of Total
Misuse of Equipment					
Overfuelling	0	0	1	1	.2
Misuse of Equipment, Unclassified	0	0	0	0	—
Sub-Total	**0**	**0**	**1**	**1**	**.2**
Human Failing					
Asleep	10	1	2	13	2.9
Temporary Loss of Judgement	1	0	0	1	.2
Physical or Mental Disability	0	1	0	1	.2
Accident	4	3	1	8	1.8
Suspected Impairment by Alcohol, Drugs, Medication	4	3	0	7	1.6
Asleep – Suspected Use of Alcohol, Drugs, Medication	7	3	0	10	2.3
Ignorance of Hazard	21	21	3	45	10.2
Distracted, Preoccupied	13	0	0	13	2.9
Human Failing, Unclassified	3	2	0	5	1.1
Sub-Total	**63**	**34**	**6**	**103**	**23.4**
Vehicle Accident					
Automobile	2	0	0	2	.5
Industrial Truck	1	0	0	1	.2
Other Road Vehicle	0	0	0	0	—
Rail Vehicle	0	0	5	5	1.1
Watercraft	0	0	0	0	—
Aircraft	1	0	0	1	.2
Vehicle Accident, Unclassified	0	0	0	0	—
Sub-Total	**4**	**0**	**5**	**9**	**2.0**
Miscellaneous					
Miscellaneous, Unclassified	4	2	1	7	1.6
Act or Omission – Cannot be Determined	15	8	13	36	8.2
Sub-Total	**19**	**10**	**14**	**43**	**9.8**
Total	**224**	**152**	**65**	**441**	**100.0**

Commentary

Child playing with the source of ignition was the leading cause of fires where injuries occurred, followed by ignorance of hazard.

Casualties in Residential Properties – 1986

Casualties Related to Initial Detection of the Fire

Initial Detection	Fire Deaths	Injuries
Smoke Alarm/Detector	2	34
Heat Alarm/Detector	0	0
Automatic Systems	0	1
Visual Sighting	32	213
Unclassified/Unknown	0	0
Total	**34**	**248**

Commentary
There were only two fatalities in residential fires where the fires were initially detected by smoke alarms or smoke detectors.

Casualties by Smoke Alarm Activation

Smoke Alarm Activation	Fire Deaths	Injuries
Activated	3	82
Didn't Activate	4	48
Unknown	4	16

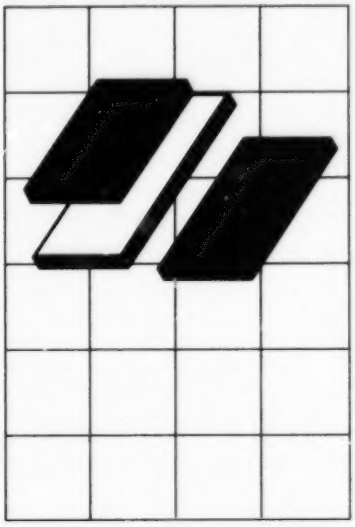
Commentary
The two fires where the smoke alarms activated resulted in three fatalities, however five other lives were saved.

In 50% of the fatal fires where the smoke alarm didn't activate, it was because the alarm contained no battery.

Casualties by Method of Control and Extinguishment

Method of Control and Extinguishment	Fire Deaths	Injuries
Hand Fire Extinguisher	0	23
Standpipe System	1	11
Makeshift Firefighting Aid	0	41
Fire Department – Water	24	128
Fire Department – Other Than Water	0	1
Sprinkler System	0	0
Fixed System Other Than Sprinklers	0	0
Burned Out	1	9
Miscellaneous	8	35
Total	**34**	**248**

SECTION 2



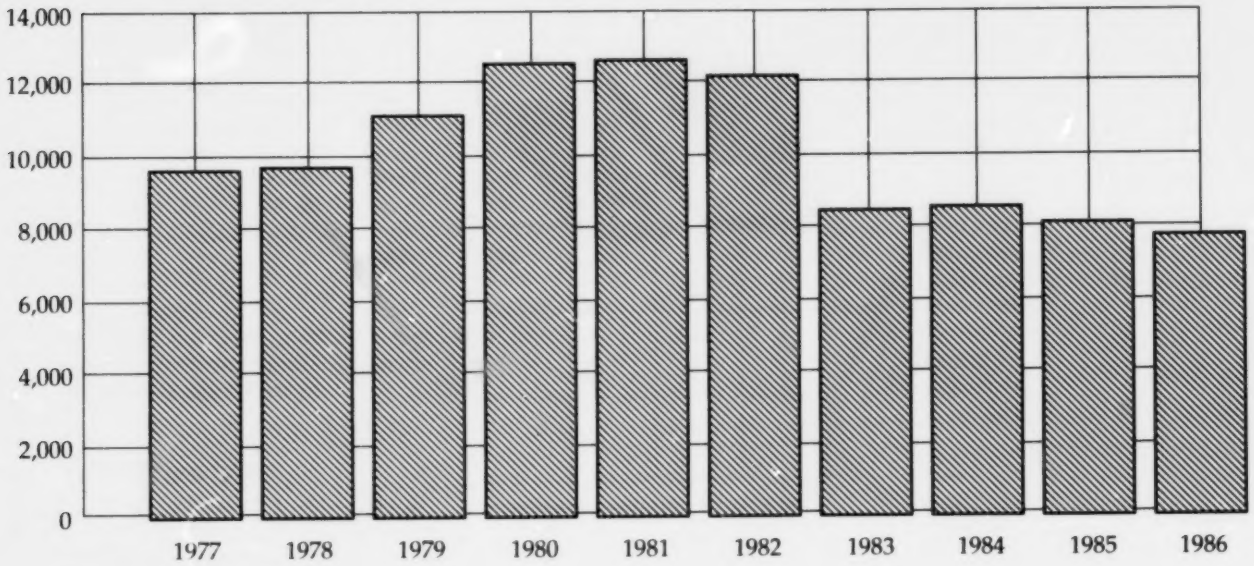
Alberta Fire Loss Information

Fire Commissioner's
Statistical Report

1 9 8 6

Fires and Losses 1977-1986

Number of Fires

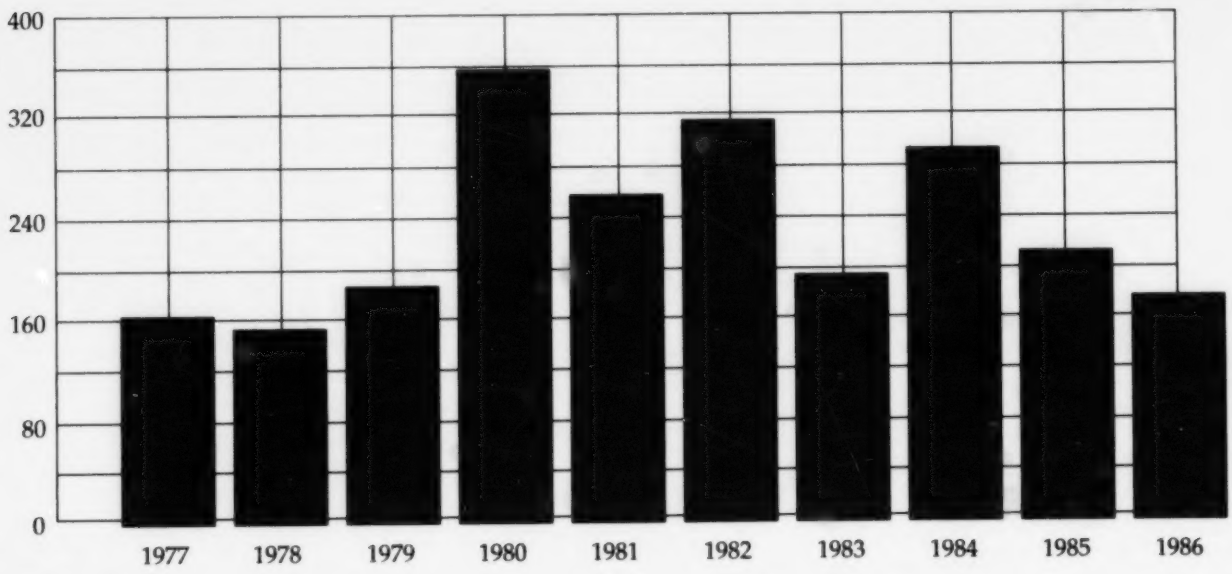


Commentary

The number of fires has decreased by 20% from 1977 to 1986. Grass fires were not included in 1983, 1984, 1985 and 1986 as they were in previous years. If they had been included, fires in 1983 would have been 10,210, in 1984 would have been 10,193, in 1985 would have been 9,200 and in 1986 would have been 8,666.

Losses (in $millions)

Losses
Adjusted Losses (C.P.I.)



Commentary

Losses have increased 52% between 1977 and 1986 and adjusted losses have decreased 22%.

Fire Rates and Per Capita Losses 1977-1986

Year	Population*	Number Of Fires	Fire Rate**	Loss Estimate	Loss Per Capita
1977	1,941,000	9,607	4.9	65,517,259	33.75
1978	2,011,000	9,683	4.8	65,264,664	32.45
1979	2,085,000	11,162	5.4	83,067,224	39.84
1980	2,180,000	12,564	5.8	167,330,779	76.75
1981	2,267,000	12,660	5.6	128,969,303	56.88
1982	2,345,000	12,189	5.2	168,680,055	71.93
1983	2,366,000	8,479 ***	3.6	108,633,274	45.91
1984	2,358,000	8,557 ***	3.6	162,484,605	68.90
1985	2,338,000	8,051 ***	3.4	115,152,713	49.25
1986	2,372,000	7,717 ***	3.2	99,556,393	41.97
Average (1977-1986)		10,067		137,850,541	

* As published by Alberta Quarterly Growth, 4th Quarterly, Alberta Bureau of Statistics

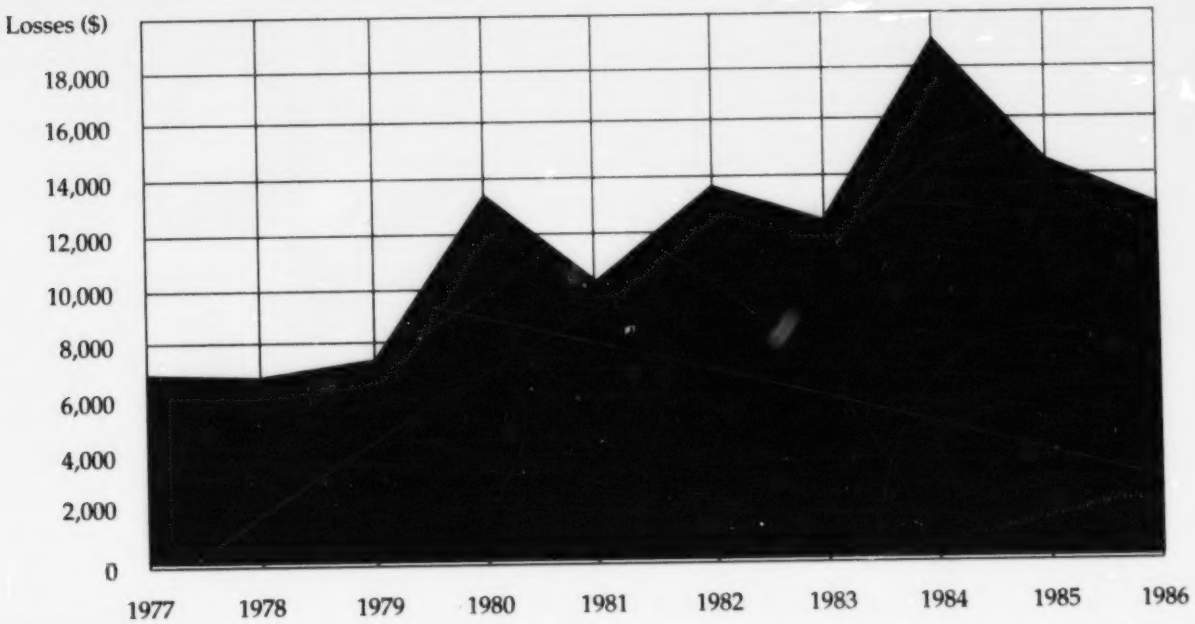
** Number of fires per 1,000 population

*** These numbers do not include 1,797 grass fires where no losses occurred in 1983, 1,625 grass fires in 1984, 1,212 grass fires in 1985 and 949 grass fires in 1986.

Commentary

From 1977 to 1986, Alberta's population increased 22%, the number of fires decreased over 19%, the loss estimate increased 52%, and the loss per capita increased 24%. Between 1985 and 1986 the number of fires decreased by more than 4% and the losses by more than 13%.

Average Loss Per Fire 1977-1986



Commentary

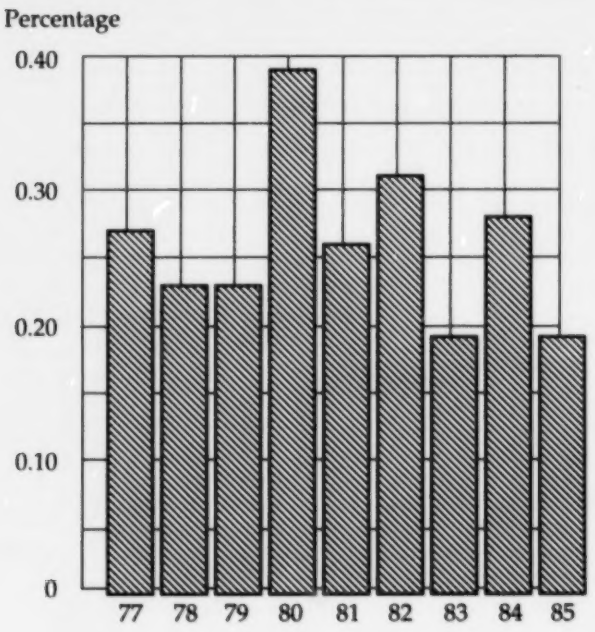
The average loss per fire increased by 89% from 1977 to 1986.

Fire Losses
Related to Economic Indices 1977-1986

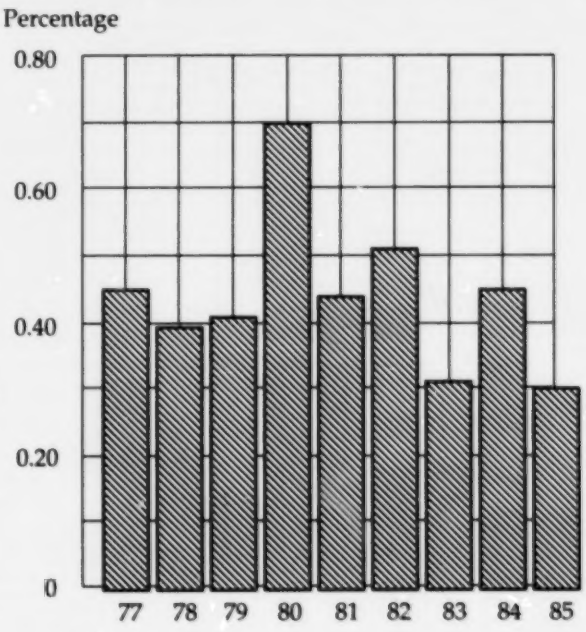
Year	Fire Losses (in $ Millions)	Gross Domestic Product		Personal Income	
		Gross Domestic Product* (in $ Millions)	% Of Gross Domestic Product	Personal Income* (in $ Millions)	% Of Personal Income
1977	65.5	24,432	.27	14,435	.45
1978	65.3	28,315	.23	16,610	.39
1979	83.0	35,045	.23	19,865	.41
1980	167.3	42,021	.39	23,658	.70
1981	128.9	49,037	.26	29,170	.44
1982	168.6	52,838	.31	33,054	.51
1983	108.6	54,812	.19	34,442	.31
1984	162.4	57,458	.28	35,840	.45
1985	115.1	62,009	.19	38,762	.30
1986	99.6	N/A	—	N/A	—

* Alberta Economic Accounts, 1985

Fire Losses As A Percentage of Gross Domestic Product

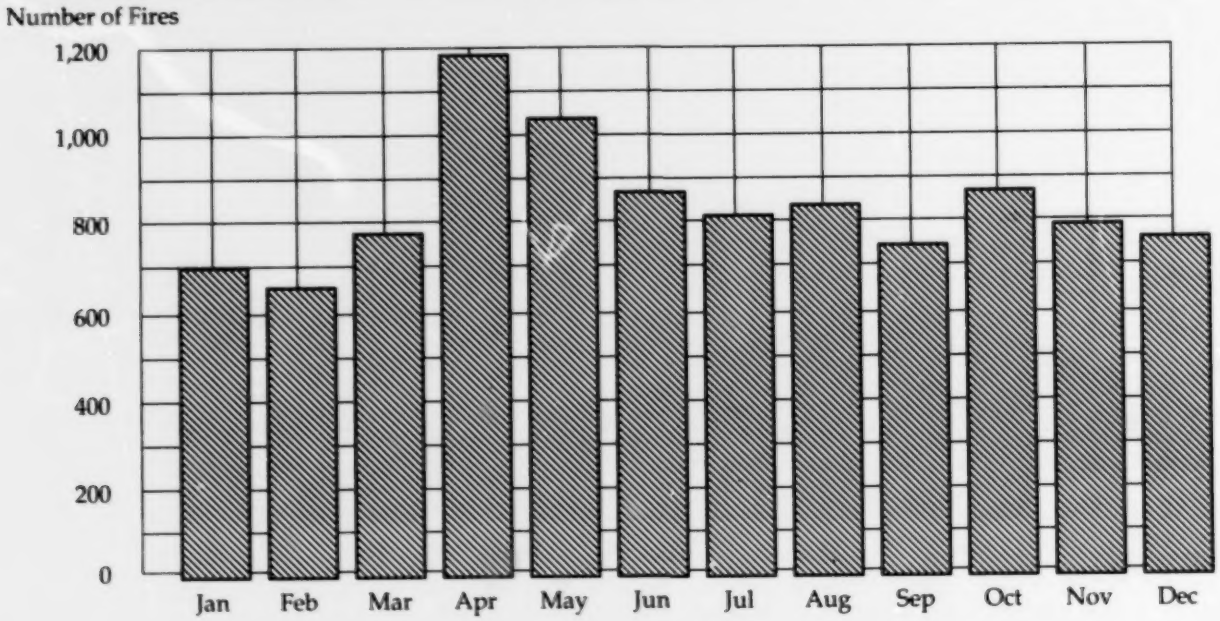


Fire Losses As A Percentage of Personal Income

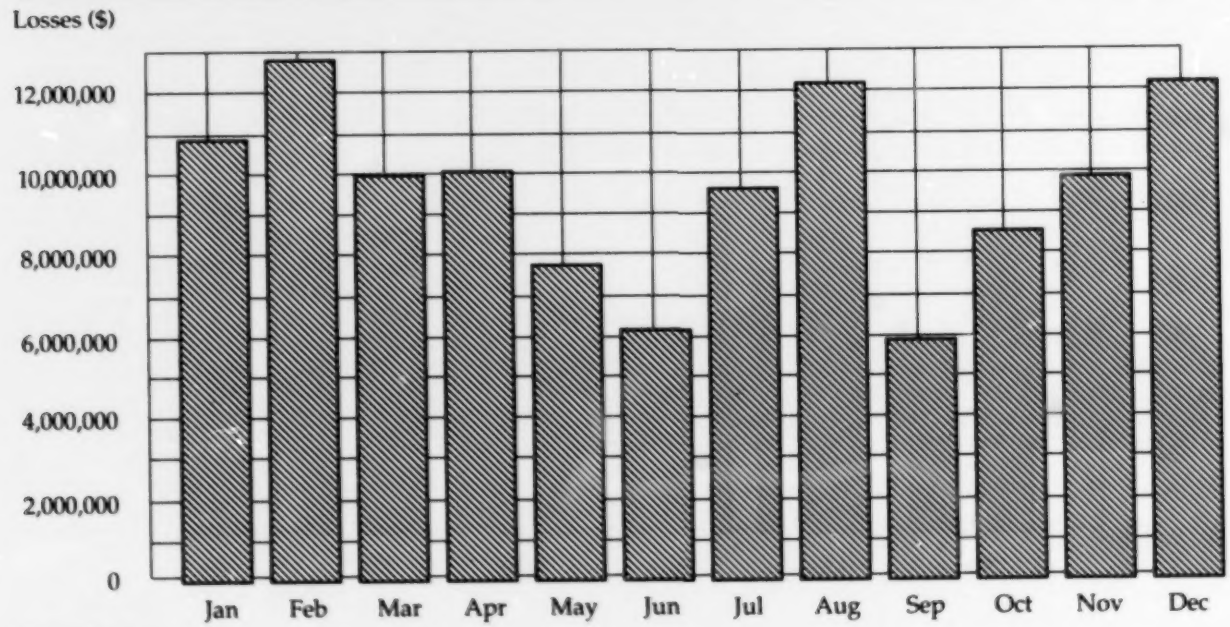


Commentary
As a percentage of gross domestic product, fire losses have decreased 30% between 1977 and 1985. As a percentage of personal income, fire losses decreased 33% during the same time period.

Average Number of Fires by Month 1977-1986



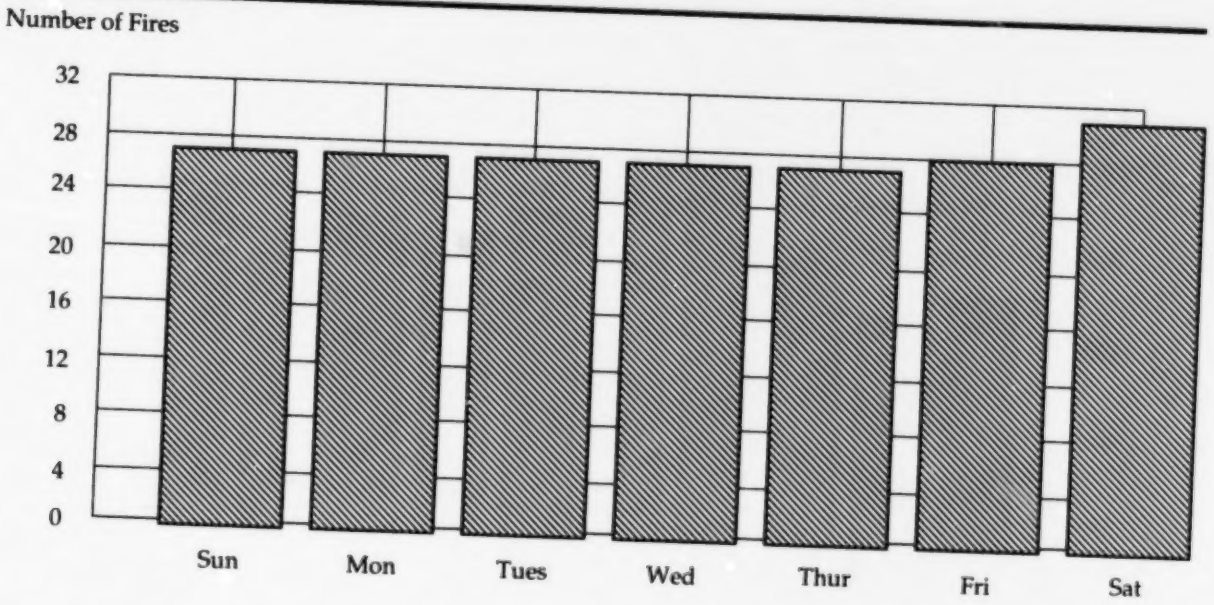
Average Fire Loss by Month 1977-1986



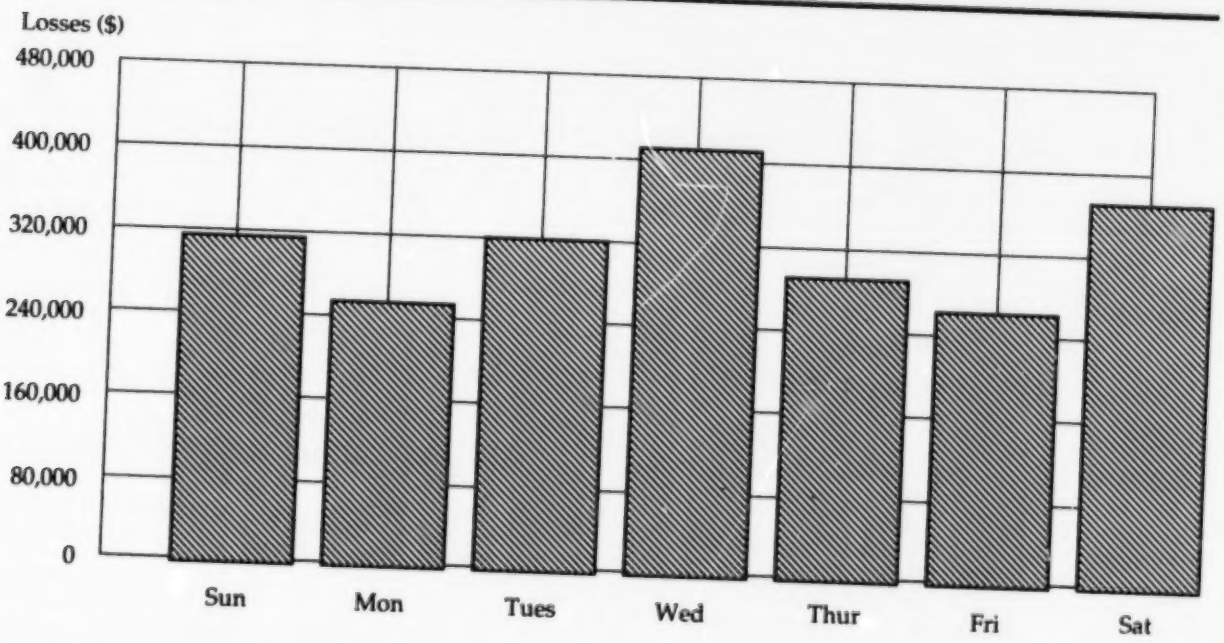
Commentary

While the average number of fires was greatest in the months of April and May, average losses were highest in December and August. The highest average loss per fire per month ($19,374) was in February.

Average Number of Fires by Day of Week 1977-1986



Average Fire Loss by Day of Week 1977-1986

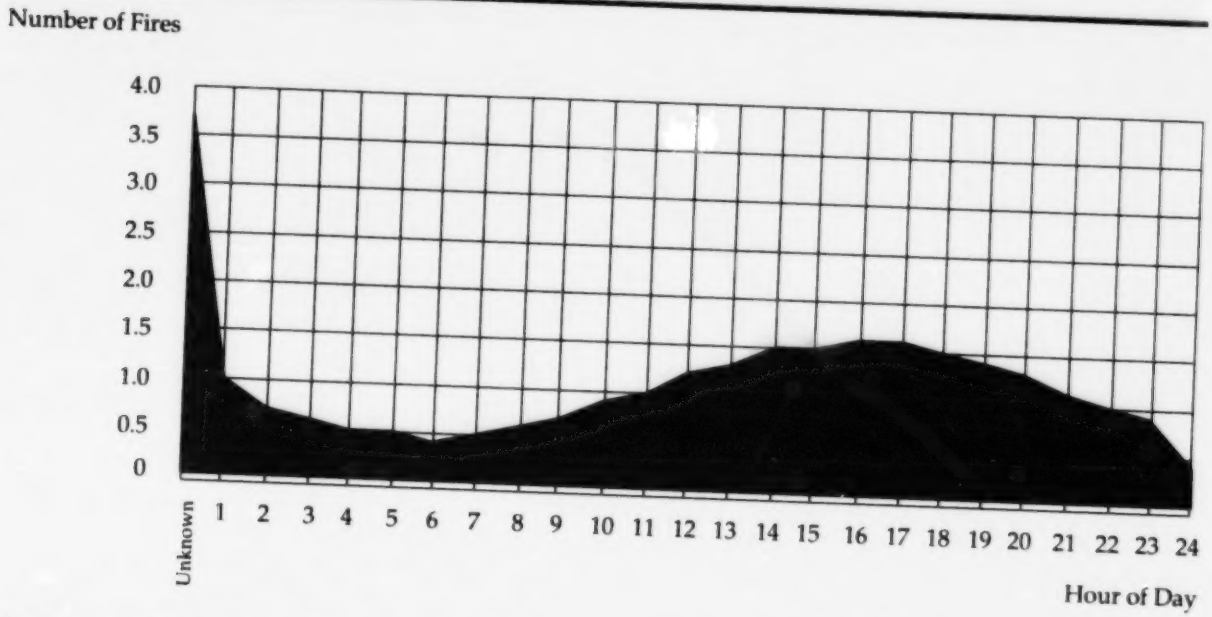


Commentary

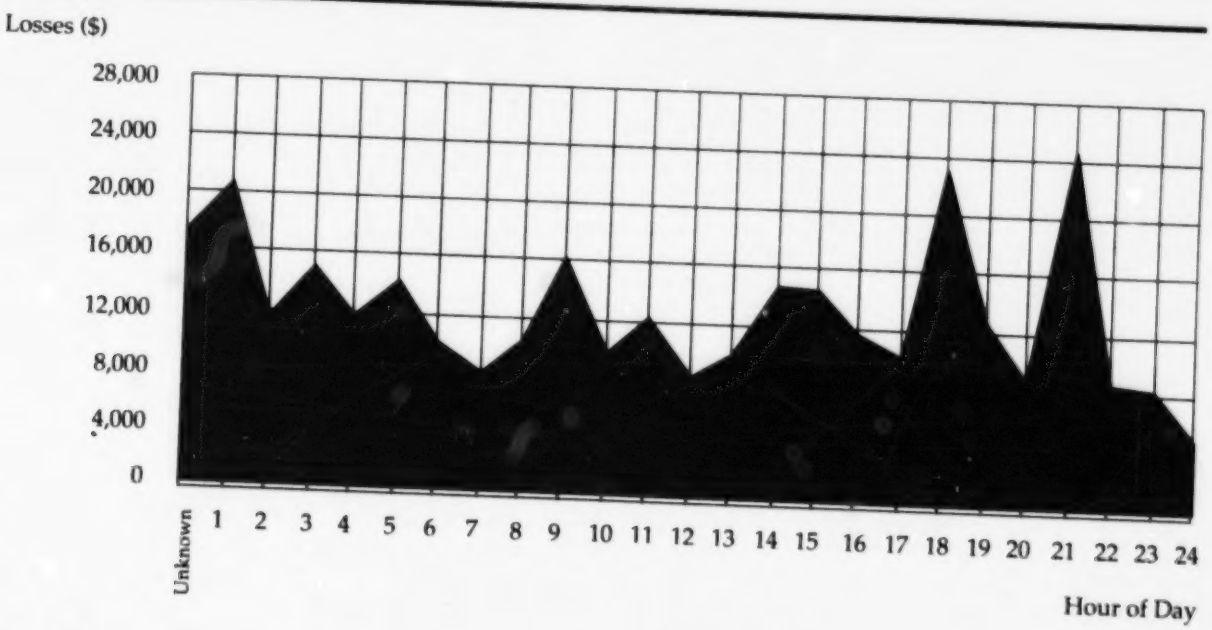
From 1977 to 1986, the highest average number of fires on any day of the week occurred on Saturday.

Wednesday had higher losses than other days, with Monday having the lowest losses.

Average Number of Fires by Hour of Day 1977-1986



Average Fire Loss by Hour of Day 1977-1986



Commentary

While the greatest number of fires occurred between the hours of 1400 (2:00 p.m.) and 1800 (6:00 p.m.), the greatest losses generally occurred at 1800 (6:00 p.m.) and 2100 (9:00 p.m.). The greatest average loss was sustained at 0500 (5:00 a.m.) with an average loss of $31,101.

Fires by Loss Category – 1986

Loss Category	Number	Losses	Percentage Number	Percentage Losses
$1 - 99	1,087	32,128	14.1	Less than .1
100 - 999	2,533	1,070,757	32.8	1.1
1,000 - 9,999	2,796	8,931,616	36.2	9.0
10,000 - 49,999	926	20,013,457	12.0	20.1
50,000 - 249,999	324	30,018,792	4.2	30.1
250,000 - 499,999	31	10,135,637	.4	10.2
500,000 and over	20	29,354,006	.3	29.5
Total	**7,717**	**99,556,393**	**100.0**	**100.1**

Commentary
Just over one-half of one per cent of the fires caused 39.7% of the 1986 losses.

1986 Large Loss Fires ($500,000 and over)

Property Class	Date	Location	Occupancy	Act or Omission	Losses	Deaths	Injuries
Assembly	Feb. 8	Edmonton	Church	Unknown	850,000		
	Mar. 5	Fort Saskatchewan	High School	Unknown	2,000,000		
	June 2	Calgary	Restaurant	Smoker's Material	1,001,000	—	1
	June 27	Calgary	High School	Incendiary	1,000,000	—	5
	Nov. 7	Edmonton	Bingo Hall	Unknown	630,000		
Residential	June 2	Red Deer	Apartment	Part Failure	574,885		
	Nov. 26	Calgary	Apartment	Overheated Cooking Oil	2,600,000	—	1
Mercantile	June 4	Edmonton	Furniture Store	Electrical Malfunction	860,896		
Industrial Manufacturing	Jan. 3	Cty #31	Petroleum Refinery	Part Failure	1,000,000		
	Mar. 25	I.D. #16	Chemical Manufacturing	Part Failure	542,000		
	Apr. 12	Cty #20	Petroleum Refinery	Unknown	500,000		
Storage	June 11	Grassy Lake	Grain Elevator	Unknown	676,000		
	Oct. 23	Cardston	Grain Elevator	Unknown	529,704		
	Oct. 23	Cardston	Grain Elevator	Unknown	762,170		
Special	Feb. 8	I.D. #14	Train	Train Accident	4,827,000	1	5
	Feb. 8	I.D. #14	Train	Train Accident	2,230,000		
	Dec. 6	Calgary	Building under major renovations	Incendiary	3,278,351	—	14
Miscellaneous	Apr. 25	I.D. #16	Gas Manufacturing	Unknown	1,376,000		
	May 18	I.D. #17	Gas Manufacturing	Unknown	716,000		
	Aug. 25	I.D. #18	Gas Manufacturing	Unknown	3,400,000		

Commentary
In comparison with 1985 large loss fires, 1986 large loss fires decreased by 20% and the dollar losses decreased by 26%.

Fires by Major Property Classifications – 1986

Property Classification	Number Of Fires	% Of Total	Losses	% Of Total
Assembly				
Theatre, Studio, Auditorium	1	—	105,000	.1
Amusement, Recreation Place	24	.3	815,572	.8
School, College, University	64	.8	3,742,157	3.8
Church, Funeral Parlour	10	.1	1,026,548	1.0
Clubs, Social, Sport	5	.1	15,302	—
Museum, Art Gallery, Library	3	—	65,346	.1
Food or Beverage Establishment	80	1.0	2,455,502	2.5
Passenger Terminal, Station	2	—	110	—
Miscellaneous	1	—	707	—
Sub-Total	**190**	**2.5**	**8,226,244**	**8.3**
Institutional				
Prison, Jail, Reformatory	6	.1	87,500	.1
Home for the Aged	18	.2	52,633	.1
Child Care	4	.1	71,230	.1
Hospital, Sanatorium, Clinic	36	.5	17,950	—
Miscellaneous	14	—	49,290	.1
Sub-Total	**65**	**.8**	**278,603**	**.3**
Residential				
One and Two Family Dwellings	1,576	20.4	23,204,141	23.3
Apartment	541	7.0	6,794,986	6.8
Rooming, Boarding House	9	.1	72,951	.1
Hotel	45	.6	473,832	.5
Motor Hotel	18	.2	321,685	.3
Dormitory	21	.3	294,255	.3
Mobile Home	306	4.0	3,138,673	3.2
Miscellaneous	4	.1	2,162	—
Sub-Total	**2,520**	**32.7**	**34,302,685**	**34.5**
Business and Personal Service				
Office	43	.6	602,831	.6
Personal Service	2	—	96,324	.1
Electronic Equipment	1	—	2,000	—
Miscellaneous	0	—	0	—
Sub-Total	**46**	**.6**	**701,155**	**.7**
Mercantile				
Food, Beverage Sale	17	.2	756,028	.8
Textile, Wearing Apparel Sale	3	—	460,561	.5
Furniture, Appliance, Hardware Sales	8	.1	1,500,709	1.5
Books, Newspapers, Drugs, Specialties	11	.1	223,877	.2
Recreation, Hobby Supplies	2	—	2,483	—
Repair Shop, Laundry, Dry Cleaner	22	.3	437,739	.4
Motor Vehicles, Boats, Sales and Service	39	.5	908,539	.9
Department, Variety Store	16	.2	470,535	.5
Miscellaneous	4	.1	558,049	.6
Sub-Total	**122**	**1.6**	**5,318,520**	**5.3**

Fires by Major Property Classifications – 1986 (cont'd)

Property Classification	Number Of Fires	% Of Total	Losses	% Of Total
Industrial Manufacturing Properties				
Chemicals, Petroleum, Paints, Plastics	29	.4	3,640,314	3.7
Wood, Furniture, Paper, Printing	25	.3	784,038	.8
Metal, Metal Products, Electrical Equipment and Appliances	32	.4	1,099,493	1.1
Food Processing	13	.2	575,457	.6
Beverage, Tobacco, Soap, Margarine	1	—	100	—
Textiles	0	—	0	—
Wearing Apparel, Footwear	0	—	0	—
Vehicles and Related Equipment	1	—	3,000	—
Miscellaneous	8	.1	45,577	—
Sub-Total	**109**	**1.4**	**6,147,979**	**6.2**
Storage Properties				
Agricultural Products	46	.6	4,037,875	4.1
Textiles, Fibres, Clothing	3	—	6,150	—
Processed Food, Beverage	2	—	2,916	—
Flammable Liquids, Gases, Petroleum Products	25	.3	852,173	.9
Wood, Furniture, Paper and Products	27	.3	83,812	.1
Chemicals, Plastics, Paints	4	.1	408,001	.4
Metal Products, Machinery, Electrical Appliance	7	.1	55,210	.1
Vehicle	239	3.1	1,756,642	1.8
Miscellaneous	30	.4	907,786	.9
Sub-Total	**383**	**5.0**	**8,110,565**	**8.1**
Special Property — Transportation Equipment				
Outdoor Property	826	10.7	100,419	.1
Special Connecting Thoroughfares	2	—	501	—
Under Construction or Demolition: Vacant	162	2.1	4,887,312	4.9
Watercraft	15	.2	59,700	.1
Rail Transport Vehicle and Equipment	15	.2	7,468,800	7.5
Ground Transport Vehicle	2,378	30.8	7,577,335	7.6
Aircraft	1	—	16,500	—
Special Vehicles	333	4.3	4,324,992	4.3
Other Special Property	0	—	0	—
Sub-Total	**3,732**	**48.4**	**24,435,559**	**24.5**
Miscellaneous Property				
Laboratories	2	—	150	—
Farm Facilities	240	3.1	2,823,785	2.8
Miscellaneous Outbuildings	175	2.3	508,199	.5
Utility	70	.9	878,923	.9
Cement, Glass, Pottery Manufacturing	3	—	141,000	.1
Mining, Quarrying	40	.5	7,651,421	7.7
Communications	5	.1	4,036	—
Nucleonics	0	—	0	—
Miscellaneous	15	.2	27,569	—
Sub-Total	**550**	**7.1**	**12,035,083**	**12.1**
Total	**7,717**	**100.1**	**99,556,393**	**100.0**

Commentary

While the number of fires was greatest in the 'special' classification (notably vehicles) with 48%, losses were greatest in residential properties with 35%.

Property Losses Related to Area of Origin – 1986

Property Classification	Means of Egress		Assembly Area		Function Area		Storage Area	
	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses
Assembly	20	1,385,288	22	3,129,908	62	567,959	15	434,952
Institutional	3	121	6	86,974	45	151,858	2	36,000
Residential	79	771,250	310	4,679,569	1,339	14,702,107	84	1,454,102
Business	4	31,502	2	96,824	15	193,506	4	1,251
Mercantile	3	19,863	11	1,448,390	14	201,663	19	1,696,842
Manufacturing	1	5,250	0	0	32	2,750,894	9	103,923
Storage	3	18,799	1	150	7	130,389	154	2,544,399
Special	7	3,328,750	8	125,751	36	374,324	19	182,114
Miscellaneous	1	4,567	0	0	42	6,456,650	105	1,216,757
Total	**121**	**5,565,390**	**360**	**9,567,566**	**1,592**	**25,529,350**	**411**	**7,670,340**

Property Classification	Service Facilities		Service and Equipment Area		Structural Area		Vehicle Area	
	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses
Assembly	5	10,000	24	1,804,380	33	747,979	1	80,141
Institutional	2	2,000	4	1,100	3	550	0	0
Residential	78	355,967	115	2,039,148	327	5,409,569	30	153,474
Business	3	16,759	5	11,601	13	349,712	0	0
Mercantile	1	1	27	404,437	29	1,025,340	5	74,820
Manufacturing	5	18,236	31	1,999,544	15	227,053	0	0
Storage	0	0	13	454,068	122	3,130,714	17	301,202
Special	0	0	7	124,468	52	317,941	2,742	19,445,929
Miscellaneous	2	30,100	38	952,877	172	1,386,456	14	43,882
Total	**96**	**422,263**	**264**	**7,791,623**	**766**	**12,595,314**	**2,809**	**20,099,448**

Property Classification	Outside Area		Unknown		Total	
	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses
Assembly	3	2,100	5	63,537	190	8,226,244
Institutional	0	0	0	0	65	278,603
Residential	39	469,300	119	4,268,199	2,520	34,302,685
Business	0	0	0	0	46	701,155
Mercantile	8	31,598	5	415,566	122	5,318,520
Manufacturing	10	492,975	5	550,104	109	6,147,979
Storage	60	870,196	6	660,648	383	8,110,565
Special	831	103,727	30	432,555	3,732	24,435,559
Miscellaneous	148	1,450,805	28	492,989	550	12,035,083
Total	**1,099**	**3,420,701**	**198**	**6,883,598**	**7,717**	**99,556,393**

Commentary

For all types of occupancies, fires starting in means of egress areas caused an average $45,995 loss. The next highest average loss, $29,514, occurred when fires started in service and equipment areas.

Property Losses Related to Act or Omission – 1986

Property Classification	Incendiary Fires		Misuse Of Source		Misuse Of Material		Mechanical, Electrical Failure	
	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses
Assembly	67	2,184,927	28	1,506,522	23	115,207	37	678,927
Institutional	15	160,766	12	34,972	2	2,785	2	2,129
Residential	211	2,645,309	525	5,906,065	481	5,887,896	405	5,065,733
Business	11	116,463	8	108,882	3	33,100	14	377,610
Mercantile	34	1,454,820	18	439,926	9	133,794	27	1,950,354
Manufacturing	7	93,104	15	394,518	5	65,369	34	3,010,925
Storage	80	583,388	88	899,192	36	1,043,738	57	629,380
Special	439	4,674,066	577	926,332	101	220,378	1,724	5,702,854
Miscellaneous	52	181,685	162	466,051	21	201,939	118	2,590,571
Total	**916**	**12,094,528**	**1,433**	**10,682,460**	**681**	**7,704,206**	**2,418**	**20,008,483**

Property Classification	Design Deficiency		Misuse Of Equipment		Human Failing		Vehicle Accident	
	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses
Assembly	4	5,002	1	3,187	16	35,758	1	1,000
Institutional	1	500	0	0	30	28,036	0	0
Residential	83	1,711,176	12	89,556	536	3,956,179	0	0
Business	5	3,350	1	200	2	550	0	0
Mercantile	3	26,346	0	0	12	43,365	1	17,500
Manufacturing	8	503,086	0	0	16	96,554	0	0
Storage	12	30,294	1	500	31	523,817	0	0
Special	21	97,459	9	117,418	150	828,165	71	7,932,903
Miscellaneous	11	3,547,047	0	0	21	647,078	1	400
Total	**148**	**5,924,260**	**24**	**210,861**	**814**	**6,159,502**	**74**	**7,951,803**

Property Classification	Miscellaneous		Unknown		Total	
	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses
Assembly	1	5,000	12	3,690,714	190	8,226,244
Institutional	0	0	3	49,415	65	278,603
Residential	47	799,982	220	8,240,789	2,520	34,302,685
Business	0	0	2	61,000	46	701,155
Mercantile	1	20,000	17	1,232,415	122	5,318,520
Manufacturing	6	257,087	18	1,727,336	109	6,147,979
Storage	14	256,692	64	4,143,564	383	8,110,565
Special	108	933,515	532	3,002,469	3,732	24,435,559
Miscellaneous	49	183,401	115	4,216,911	550	12,035,083
Total	**226**	**2,455,677**	**983**	**26,364,613**	**7,717**	**99,556,393**

Commentary

Mechanical and electrical failures caused 31% of all fires and 20% of the losses. Misuse of source of ignition caused 19% of all fires and 11% of all property losses. The average loss in an incendiary fire was $13,203.

Property Losses Related to Source of Ignition – 1986

Property Classification	Cooking Equipment		Heating Equipment		Appliances and Equipment		Electrical Distribution Equipment	
	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses
Assembly	31	73,707	15	246,477	8	19,009	17	475,518
Institutional	5	2,916	1	100	3	950	0	0
Residential	739	6,980,729	345	4,740,138	177	1,572,607	127	2,264,606
Business	2	2,800	5	58,629	3	1,628	4	11,100
Mercantile	4	9,001	25	751,131	5	292,563	13	1,146,773
Manufacturing	5	159,326	18	1,402,442	6	28,056	3	70,000
Storage	12	204,851	42	354,034	9	77,178	30	580,915
Special	34	46,315	35	458,501	40	107,636	965	3,039,869
Miscellaneous	16	25,587	27	3,941,534	2	501	59	749,757
Total	**848**	**7,505,232**	**513**	**11,952,986**	**253**	**2,100,128**	**1,218**	**8,338,538**

Property Classification	Other Electrical Equipment		Smoker's Material and "Open" Flames		Exposure		Miscelleneous	
	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses
Assembly	4	40,257	84	2,937,774	5	1,850	6	14,201
Institutional	6	19,796	45	139,426	0	0	1	1,000
Residential	56	873,215	734	8,097,431	104	694,371	24	148,791
Business	7	326,303	17	215,145	3	62,000	3	2,350
Mercantile	3	75,274	38	1,321,342	7	43,376	4	26,048
Manufacturing	7	68,622	19	401,168	3	11,626	30	1,986,893
Storage	11	234,319	102	752,034	92	2,781,936	24	1,211,558
Special	20	32,320	819	4,643,781	288	984,088	586	10,097,622
Miscellaneous	28	769,555	75	264,787	181	666,421	52	634,256
Total	**142**	**2,439,661**	**1,933**	**18,772,888**	**683**	**5,245,668**	**730**	**14,122,719**

Property Classification	Unknown		Total	
	Number Of Fires	Losses	Number Of Fires	Losses
Assembly	20	4,417,451	190	8,226,244
Institutional	4	114,415	65	278,603
Residential	214	8,930,797	2,520	34,302,685
Business	2	21,200	46	701,155
Mercantile	23	1,653,012	122	5,318,520
Manufacturing	18	2,019,846	109	6,147,979
Storage	61	1,913,740	383	8,110,565
Special	945	5,025,427	3,732	24,435,559
Miscellaneous	110	4,982,685	550	12,035,083
Total	**1,397**	**29,078,573**	**7,717**	**99,556,393**

Commentary

Smoker's material and open flames were the source of ignition for 25% of the fires and 19% of the losses. Where a source of ignition was identified, the highest average loss of $23,300 was in fires where the source was heating equipment. In residential properties the highest average loss, $17,832 was in fires where the source of ignition was electrical distribution equipment.

Property Losses Related to Fuel or Energy – 1986

Property Classification	Coal or Wood, etc. Number Of Fires	Coal or Wood, etc. Losses	Fuel Oil Number Of Fires	Fuel Oil Losses	Gasoline Number Of Fires	Gasoline Losses	Natural Gas or Other Fuel Gas Number Of Fires	Natural Gas or Other Fuel Gas Losses
Assembly	4	27,268	0	0	1	4,000	43	607,736
Institutional	0	0	0	0	0	0	5	851
Residential	230	2,643,424	15	163,779	9	36,394	254	4,005,729
Business	0	0	0	0	0	0	8	28,849
Mercantile	4	380,265	5	33,290	1	1,500	19	202,333
Manufacturing	5	113,991	4	434,600	1	10,000	31	2,252,910
Storage	21	133,259	3	16,659	3	2,900	39	207,657
Special	32	21,837	49	7,871,417	462	1,661,307	96	542,088
Miscellaneous	11	194,484	5	28,055	20	339,479	33	4,085,458
Total	**307**	**3,514,528**	**81**	**8,547,800**	**497**	**2,055,580**	**528**	**11,933,611**

Property Classification	Smoker's Material Number Of Fires	Smoker's Material Losses	Electricity Number Of Fires	Electricity Losses	Lightning Number Of Fires	Lightning Losses	Exposure Number Of Fires	Exposure Losses
Assembly	67	2,601,158	41	568,270	0	0	5	1,850
Institutional	42	138,326	12	23,611	0	0	0	0
Residential	616	6,762,124	976	9,985,709	13	376,460	104	694,371
Business	11	212,625	15	371,131	0	0	4	62,200
Mercantile	26	885,710	31	2,376,294	0	0	7	43,376
Manufacturing	3	1,502	24	639,232	1	140,462	3	11,626
Storage	73	538,946	59	1,400,054	6	174,811	91	2,779,936
Special	725	4,108,609	1,037	3,345,087	0	0	288	997,487
Miscellaneous	64	160,455	94	1,526,187	14	16,657	180	649,434
Total	**1,627**	**15,409,455**	**2,289**	**20,235,575**	**34**	**708,390**	**682**	**5,240,280**

Property Classification	Unclassified Number Of Fires	Unclassified Losses	Unknown Number Of Fires	Unknown Losses	Total Number Of Fires	Total Losses
Assembly	8	20,291	21	4,395,671	190	8,226,244
Institutional	2	1,400	4	114,415	65	278,603
Residential	87	881,897	216	8,752,798	2,520	34,302,685
Business	5	4,150	3	22,200	46	701,155
Mercantile	6	33,601	23	1,362,151	122	5,318,520
Manufacturing	15	272,810	22	2,270,846	109	6,147,979
Storage	25	941,403	63	1,914,940	383	8,110,565
Special	105	956,587	938	4,931,140	3,732	24,435,559
Miscellaneous	21	137,947	108	4,896,927	550	12,035,083
Total	**274**	**3,250,086**	**1,398**	**28,661,088**	**7,717**	**99,556,393**

Commentary

Electricity was the most commonly identified fuel or energy resulting in 30% of the fires and causing the greatest losses (20%). The average loss in a fire initially fueled by fuel oil is in excess of $105,528.

Property Losses Related to Material First Ignited – 1986

Property Classification	Structural Components		Furniture, Furnishings		Clothing, Textiles		Wood, Paper Products	
	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses
Assembly	23	423,659	7	61,696	8	142,608	35	1,306,636
Institutional	2	350	23	89,832	7	72,064	15	24,955
Residential	321	4,539,628	426	4,481,545	131	1,553,164	166	1,771,414
Business	12	87,786	2	96,374	0	0	11	123,139
Mercantile	17	337,769	3	209,127	4	8,200	17	454,507
Manufacturing	16	402,285	2	1,832	2	6,621	15	66,322
Storage	102	3,087,009	9	54,756	16	193,832	50	98,681
Special	55	345,834	88	200,232	40	130,073	150	445,892
Miscellaneous	155	997,491	1	350	3	9,014	25	56,141
Total	**703**	**10,221,811**	**561**	**5,195,744**	**211**	**2,115,576**	**484**	**4,347,687**

Property Classification	Flammable Liquids		Flammable Gases		Chemicals		Agricultural Products	
	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses
Assembly	41	1,159,152	5	3,651	8	4,134	3	5,630
Institutional	5	3,115	0	0	1	400	0	0
Residential	665	7,594,885	69	1,532,964	60	205,720	31	188,827
Business	1	500	1	1	4	6,319	1	9,987
Mercantile	27	390,105	5	25,503	3	59,950	3	401,396
Manufacturing	23	1,538,169	9	1,646,500	7	361,408	7	132,679
Storage	62	882,998	10	378,200	6	10,999	13	790,092
Special	1,020	13,637,150	68	332,093	56	414,717	244	1,411,633
Miscellaneous	42	3,857,752	25	2,487,854	10	510,695	119	679,518
Total	**1,886**	**29,063,826**	**192**	**6,406,766**	**155**	**1,574,342**	**421**	**3,619,762**

Property Classification	Miscellaneous		Unknown		Total	
	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses
Assembly	42	249,858	18	4,869,220	190	8,226,244
Institutional	10	32,597	2	55,290	65	278,603
Residential	376	2,779,643	275	9,654,895	2,520	34,302,685
Business	11	349,286	3	27,763	46	701,155
Mercantile	25	2,131,267	18	1,300,696	122	5,318,520
Manufacturing	9	236,567	19	1,755,596	109	6,147,979
Storage	48	472,709	67	2,141,289	383	8,110,565
Special	1,267	2,230,616	744	5,287,319	3,732	24,435,559
Miscellaneous	73	682,256	97	2,754,012	550	12,035,083
Total	**1,861**	**9,164,799**	**1,243**	**27,846,080**	**7,717**	**99,556,393**

Commentary

When identified, the materials most commonly first ignited were flammable liquids (24%). These fires resulted in 29% of the losses.

Property Losses Related to Initial Detection – 1986

Property Classification	Smoke Alarm/ Detector Device		Heat Alarm/ Detector Device		Automatic Systems		Visual Sighting	
	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses	Number Of Fires	Losses
Assembly	8	58,857	8	43,673	7	28,117	165	8,094,613
Institutional	24	9,511	4	46,770	2	120	33	137,202
Residential	228	2,172,458	11	67,306	13	24,250	2,260	31,836,629
Business	5	63,801	0	0	2	1,100	39	636,254
Mercantile	1	291,861	2	5,520	3	742,421	116	4,278,718
Manufacturing	0	0	0	0	6	100,600	102	6,037,379
Storage	0	0	1	1	3	43,710	376	8,043,858
Special	0	0	0	0	0	0	3,730	24,415,759
Miscellaneous	0	0	0	0	1	15,000	549	12,020,083
Total	**266**	**2,596,488**	**26**	**163,270**	**37**	**955,318**	**7,370**	**95,500,495**

Property Classification	Unclassified or Unknown		Total	
	Number Of Fires	Losses	Number Of Fires	Losses
Assembly	2	984	190	8,226,244
Institutional	2	85,000	65	278,603
Residential	8	202,042	2,520	34,302,685
Business	0	0	46	701,155
Mercantile	0	0	122	5,318,520
Manufacturing	1	10,000	109	6,147,979
Storage	3	22,996	383	8,110,565
Special	2	19,800	3,732	24,435,559
Miscellaneous	0	0	550	12,035,083
Total	**18**	**340,822**	**7,717**	**99,556,393**

Commentary

The average loss of a fire first detected by visual sighting was $12,958. The average loss of a fire first detected by a smoke alarm/detector was $9,761.

Fires by Method of Fire Control and Extinguishment – 1986

Method of Fire Control and Extinguishment	No. Of Fires	Losses
Hand Fire Extinguisher		
Water pump tank	264	637,329
Water pressurized	92	933,477
Water soda-acid	1	1,800
Foam	9	576,315
Vapourizing liquid/Halon	6	17,219
CO_2	38	77,754
Dry chemical	408	1,147,976
Multi-purpose dry chemical	66	162,877
Hand fire extinguisher - unclassified	42	48,887
Sub-Total	**926**	**3,603,634**
Standpipe System		
Small hose, 38 mm nominal size, straight stream nozzle	48	332,514
Small hose, 38 mm nominal size, combination nozzle	182	1,270,107
Large hose, 65 mm nominal size, straight stream nozzle	1	10,163
Large hose, 65 mm nominal size, combination nozzle	9	257,063
Continuous flow hose, less than 38 mm nominal size, straight stream nozzle	3	61
Continuous flow hose, less than 38 mm nominal size, combination nozzle	3	75,500
Standpipe system - unclassified	1	20,000
Sub-Total	**247**	**1,965,408**
"Makeshift" Fire Fighting Aid		
Garden hose	131	270,736
Water bucket	104	96,416
Small water container	152	291,728
Sand bucket	3	1,150
Dry chemical and scoop	5	10,660
Baking soda	22	30,512
Smothering by covering	99	100,979
Snow	47	238,518
"Makeshift" fire fighting aid - unclassified	52	79,016
Sub-Total	**615**	**1,119,715**
Fire Department – Water		
Booster hose, 25 mm or less	243	494,059
38 mm hose, 1 hoseline	1,636	6,628,648
38 mm hose, 2 or more hoselines	718	16,409,715
65 mm hose, 1 hoseline	17	455,875
65 mm hose, 2 or more hoselines	42	4,274,707
77 mm or larger hose, 1 or more hoselines	8	169,879
Combinations of 38 mm, 65 mm, 77 mm or larger hoselines	320	31,035,245
Portable water deluge set	8	120,283
Fire department - water - unclassified	30	835,290
Sub-Total	**3,022**	**60,423,701**

Fires by Method of Fire Control and Extinguishment – 1986 (cont'd)

Method of Fire Control and Extinguishment	No. Of Fires	Losses
Fire Department - Other Than Water		
Crash-fire foam vehicle, using monitor	2	950
Crash-fire foam vehicle, using handlines	1	4,000
Pumper, foam handlines only, via educator	23	325,935
Vehicle, combination, foam-dry chemical	1	5,000
Vehicle, dry chemical, under 450 kg	1	3,700
Vehicle, dry chemical, 450 kg and over	1	1,066
Fire department - other than water - unclassified	12	7,576
Sub-Total	**41**	**348,227**
Sprinkler System		
Wet pipe system, central station supervised, standard watchman service, or alarm connection to fire department	12	358,263
Wet pipe system, local alarm only	4	22,142
Dry pipe system, central station supervised, standard watchman service, or alarm connection to fire department	2	100
Dry pipe system, local alarm only	1	500
Pre-action system, central station supervised, standard watchman service, or alarm connection to fire department	0	0
Pre-action system, local alarm only	0	0
Engineered systems	1	155
Sprinkler system - unclassified	0	0
Sub-Total	**20**	**381,160**
Fixed System Other Than Sprinklers		
Carbon dioxide system	1	3,000
Dry chemical system	4	13,950
Halon system	0	0
Conventional (Protein) foam system	0	0
High expansion foam system	0	0
Foam-water system	0	0
Water spray system	2	30,200
Fixed system other than sprinklers - unclassified	0	0
Sub-Total	**7**	**47,150**
Burned Out		
Completely burned out before arrival of fire department	227	1,273,232
Incapable of control by fire department on arrival	28	1,800,484
Burned out - unclassified	120	687,953
Sub-Total	**375**	**3,761,669**
Miscellaneous		
Portable high expansion foam generator	0	0
CO_2 handhose system, 25 kg or more	2	40,800
Dry chemical system, handhose system, 25 kg or more	1	1
Miscellaneous - unclassified	71	154,774
Miscellaneous - cannot be determined	2,390	27,710,154
Sub-Total	**2,464**	**27,905,729**
Total	**7,717**	**99,556,393**

Commentary:
Where identified, 12% of all fires were extinguished by a hand fire extinguisher. Another 8% were extinguished by makeshift firefighting aids.

Municipal Fire Loss

for the Year Ending December 31, 1986

Municipality	1986					10 Year Total		10 Year Average	
	Population	Fire Count	Amount Of Loss	Fire Rate	Per Capita Loss	Fire Count	Amount Of Loss	Fire Rate	Per Capita Loss
County 1									
Cnty of Grande Prairie	12,078	61	653,518	5.0	54.10	1,138	11,988,307	9.4	99.25
Beaverlodge	1,937	5	111,092	2.5	57.35	52	690,332	2.6	35.63
Hythe	688	1	944	1.4	1.37	19	277,833	2.8	40.38
Sexsmith	1,345	5	100,900	3.7	75.01	58	739,193	4.3	54.95
Wembley	1,227	3	8,982	2.4	7.32	32	319,427	2.6	26.03
Total	**17,275**	**75**	**875,436**	**4.3**	**50.67**	**1,299**	**14,015,092**	**7.5**	**81.12**
County 2									
Cnty of Vulcan	3,715	15	220,255	4.0	59.28	171	2,902,466	4.6	78.12
Vulcan	1,507	1	5,200	.6	3.45	38	475,837	2.5	31.57
Arrowwood	154	—	—	—	—	2	82,798	1.2	53.76
Carmangay	247	—	—	—	—	8	40,772	3.2	16.50
Champion	380	—	—	—	—	8	49,886	2.1	13.12
Lomond	204	—	—	—	—	6	26,189	2.9	12.83
Milo	117	1	3,066	8.5	26.20	3	4,820	2.5	4.11
Total	**6,324**	**17**	**228,521**	**2.7**	**36.13**	**236**	**3,582,768**	**3.7**	**56.65**
County 3									
Cnty of Ponoka	7,536	52	324,921	6.9	43.11	478	3,583,652	6.3	47.55
Ponoka	5,476	11	165,143	2.0	30.15	151	2,973,038	2.7	54.29
Rimbey	2,106	7	8,512	3.3	4.04	70	349,719	3.3	16.60
Parkland Beach	27	—	—	—	—	—	—	—	—
Total	**15,145**	**70**	**498,576**	**4.6**	**32.92**	**699**	**6,906,409**	**4.6**	**45.60**
County 4									
Cnty of Newell	6,199	39	364,442	6.2	58.79	398	47,129,333	6.4	760.27
Brooks	9,421	18	135,462	1.9	14.37	233	3,759,093	2.4	39.90
Bassano	1,230	—	—	—	—	34	167,201	2.7	13.59
Duchess	417	—	—	—	—	8	96,155	1.9	23.05
Rosemary	328	—	—	—	—	5	7,505	1.5	2.28
Tilley	358	2	11,346	5.5	31.69	8	255,932	2.2	71.48
Total	**17,953**	**59**	**511,250**	**3.2**	**28.47**	**686**	**51,415,219**	**3.8**	**286.38**
County 5									
Cnty of Warner	3,460	11	49,561	3.1	14.32	171	1,744,058	4.9	50.40
Warner	486	1	2,922	2.0	6.01	20	227,629	4.1	46.83
Milk River	894	1	665	1.1	.74	24	271,081	2.6	30.32
Raymond	3,145	5	29,547	1.5	9.39	83	603,809	2.6	19.19
Coutts	400	2	7,809	5.0	19.52	16	653,860	4.0	163.46
Stirling	790	2	1,550	2.5	1.96	18	124,193	2.2	15.72
Total	**9,175**	**22**	**92,054**	**2.3**	**10.03**	**332**	**3,624,630**	**3.6**	**39.50**

Municipal Fire Loss

for the Year Ending December 31, 1986 (cont'd)

Municipality	1986					10 Year Total		10 Year Average	
	Population	Fire Count	Amount Of Loss	Fire Rate	Per Capita Loss	Fire Count	Amount Of Loss	Fire Rate	Per Capita Loss
County 6									
Cnty of Stettler	5,092	31	374,153	6.0	73.47	339	3,955,883	6.6	77.68
Stettler	5,136	19	132,945	3.6	25.88	193	6,299,794	3.7	122.65
Big Valley	360	1	280	2.7	.77	12	55,977	3.3	15.54
Botha	176	—	—	—	—	7	27,275	3.6	15.49
Donalda	240	1	57,861	4.2	241.08	8	115,911	3.1	48.29
Gadsby	35	—	—	—	—	2	45,001	3.5	128.57
Rochon Sands	51	—	—	—	—	2	12,076	3.9	23.67
White Sands	2	—	—	—	—	—	—	—	—
Total	**11,092**	**52**	**565,239**	**4.7**	**50.95**	**563**	**10,511,917**	**5.0**	**94.77**
County 7									
Cnty of Thorhild	3,323	18	304,377	5.4	91.59	159	2,329,157	4.7	70.09
Thorhild	566	2	1,634	3.5	2.88	13	56,338	2.2	9.95
Radway	194	—	—	—	—	3	6,830	1.5	3.52
Total	**4,083**	**20**	**306,011**	**4.8**	**74.94**	**175**	**2,392,325**	**4.2**	**58.59**
County 8									
Cnty of Forty Mile	3,506	31	559,931	8.8	159.70	184	2,040,026	5.2	58.18
Foremost	617	—	—	—	—	29	233,829	4.7	37.89
Bow Island	1,566	5	326,663	3.2	208.59	48	562,651	3.2	35.92
Burdett	281	1	11,500	3.6	40.92	7	168,885	2.6	60.10
Total	**5,970**	**37**	**898,094**	**6.2**	**150.43**	**268**	**3,005,391**	**4.5**	**50.34**
County 9									
Cnty of Beaver	5,347	43	378,336	8.0	70.75	313	2,428,732	5.8	45.42
Ryley	544	3	29,822	5.5	54.81	9	33,853	1.6	6.22
Tofield	1,560	3	129,052	1.9	82.72	38	536,565	2.4	34.39
Viking	1,238	—	—	—	—	30	1,612,942	2.4	130.28
Holden	430	—	—	—	—	4	3,476	.9	.80
Total	**9,119**	**49**	**537,210**	**5.3**	**58.91**	**394**	**4,615,568**	**4.3**	**50.61**
County 10									
Cnty of Wetaskiwin	9,026	38	450,910	4.2	49.95	470	4,703,946	5.2	52.11
Crystal Springs	43	1	4,048	23.2	94.13	2	21,677	4.6	50.41
Ma-Me-O Beach	82	—	—	—	—	21	680,407	25.6	829.76
Millet	1,428	1	845	.7	.59	24	130,259	1.6	9.12
Silver Beach	30	—	—	—	—	—	—	—	—
Grandview	53	—	—	—	—	1	332	1.8	.62
Argentia Beach	3	—	—	—	—	4	357,975	133.3	11,932.50
Poplar Bay	41	—	—	—	—	2	23,200	4.8	56.58
Total	**10,706**	**40**	**455,803**	**3.7**	**42.57**	**524**	**5,917,796**	**4.8**	**55.27**
County 11									
Cnty of Barrhead	5,517	23	507,344	4.1	91.96	204	9,106,987	3.6	165.07
Barrhead	3,849	9	64,897	2.3	16.86	79	748,755	2.0	19.45
Total	**9,366**	**32**	**572,241**	**3.4**	**61.09**	**283**	**9,855,742**	**3.0**	**105.22**

Municipal Fire Loss

for the Year Ending December 31, 1986 (cont'd)

Municipality	1986					10 Year Total		10 Year Average	
	Population	Fire Count	Amount Of Loss	Fire Rate	Per Capita Loss	Fire Count	Amount Of Loss	Fire Rate	Per Capita Loss
County 12									
Cnty of Athabasca	5,936	19	248,294	3.2	41.82	288	2,689,215	4.8	45.30
Athabasca	1,933	7	355,357	3.6	183.83	58	2,894,423	3.0	149.73
Boyle	691	1	1,700	1.4	2.46	18	47,996	2.5	6.94
Island Lake	81	—	—	—	—	—	—	—	—
Sunset Beach	36	—	—	—	—	1	2,000	2.7	5.55
Mewatha Beach	27	—	—	—	—	1	1	3.7	—
South Baptiste	65	—	—	—	—	—	—	—	—
Bondiss	59	—	—	—	—	—	—	—	—
Island Lake South	42	—	—	—	—	1	83,000	2.3	197.61
White Gull	18	—	—	—	—	—	—	—	—
West Baptiste	18	—	—	—	—	—	—	—	—
Whispering Hills	13	—	—	—	—	—	—	—	—
Total	**8,919**	**27**	**605,351**	**3.0**	**67.87**	**367**	**5,716,635**	**4.1**	**64.09**
County 13									
Cnty of Smoky Lake	2,910	26	332,696	8.9	114.32	197	2,141,230	6.7	73.58
Smoky Lake	1,165	1	1,000	.8	.85	35	309,514	3.0	26.56
Vilna	353	1	100	2.8	.28	10	109,160	2.8	30.92
Warspite	96	—	—	—	—	1	5,742	1.0	5.98
Waskatenau	286	—	—	—	—	1	1,888	.3	.66
Total	**4,810**	**28**	**333,796**	**5.8**	**69.39**	**244**	**2,567,534**	**5.0**	**53.37**
County 14									
Cnty of Lacombe	8,783	70	654,346	7.9	74.50	749	7,976,588	8.5	90.81
Lacombe	6,033	16	13,325	2.6	2.20	173	3,889,343	2.9	64.46
Alix	837	7	58,085	8.3	69.39	19	156,564	2.2	18.70
Bentley	874	2	1,200	2.2	1.37	31	94,562	3.5	10.81
Blackfalds	1,614	3	1,670	1.8	1.03	37	64,007	2.2	3.96
Clive	365	3	3,336	8.2	9.13	9	25,621	2.4	7.01
Eckville	842	5	2,151	5.9	2.55	34	326,627	4.0	38.79
Gull Lake	92	2	707	21.7	7.68	13	189,947	16.2	206.46
Mirror	552	—	—	—	—	15	218,717	2.7	39.62
Birchcliff	53	—	—	—	—	1	1,100	1.8	2.07
Half Moon Bay	43	—	—	—	—	—	—	—	—
Total	**20,088**	**108**	**734,820**	**5.4**	**36.58**	**1,081**	**12,943,076**	**5.4**	**64.43**
County 16									
Cnty of Wheatland	5,631	49	438,203	8.7	77.81	488	4,151,870	8.6	73.73
Strathmore	3,530	10	12,637	2.8	3.57	99	3,550,099	2.8	100.56
Gleichen	381	2	9,784	5.2	25.67	11	85,791	2.8	22.51
Cluny	111	—	—	—	—	11	12,266	9.9	11.05
Hussar	173	2	323,196	11.5	1,868.18	11	1,972,140	6.3	1,139.96
Rockyford	292	1	5,000	3.4	17.12	9	35,095	3.0	12.01
Standard	379	1	50	2.6	.13	10	85,265	2.6	22.49
Total	**10,497**	**65**	**788,870**	**6.1**	**75.15**	**639**	**9,892,526**	**6.0**	**94.24**

Municipal Fire Loss

for the Year Ending December 31, 1986 (cont'd)

Municipality	1986 Population	1986 Fire Count	1986 Amount Of Loss	1986 Fire Rate	1986 Per Capita Loss	10 Year Total Fire Count	10 Year Total Amount Of Loss	10 Year Average Fire Rate	10 Year Average Per Capita Loss
County 17									
Cnty of Mountain View	8,832	42	550,447	4.7	62.32	674	10,366,170	7.6	117.37
Didsbury	3,181	7	4,066	2.2	1.27	110	580,827	3.4	18.25
Olds	5,005	16	615,212	3.2	122.91	164	4,533,490	3.3	90.57
Sundre	1,750	3	3,260	1.7	1.86	60	1,031,030	3.4	58.91
Carstairs	1,725	3	116,862	1.7	67.74	55	736,621	3.1	42.70
Cremona	353	3	13,729	8.5	38.89	17	146,247	4.1	41.42
Total	**20,846**	**74**	**1,303,576**	**3.5**	**62.53**	**1,080**	**17,394,385**	**5.1**	**83.44**
County 18									
Cnty of Paintearth	2,495	10	69,733	4.0	27.94	152	1,389,099	6.0	55.67
Castor	1,123	2	1,331	1.7	1.18	19	137,927	1.6	12.28
Coronation	1,268	3	37,005	2.3	29.18	51	2,167,595	4.0	170.94
Halkirk	160	1	6,000	6.2	37.50	9	66,835	5.6	41.77
Total	**5,046**	**16**	**114,069**	**3.1**	**22.60**	**231**	**3,761,456**	**4.5**	**74.54**
County 19									
Cnty of St. Paul	6,352	66	767,943	10.3	120.89	471	4,511,964	7.4	71.03
St. Paul	5,133	14	141,028	2.7	27.47	172	3,297,029	3.4	64.23
Elk Point	1,289	1	17,734	.8	13.75	34	265,754	2.8	20.61
Horseshoe Bay	13	—	—	—	—	—	—	—	—
Total	**12,787**	**81**	**926,705**	**6.3**	**72.47**	**677**	**8,074,747**	**5.3**	**63.14**
County 20									
Cnty of Strathcona	48,024	125	1,814,814	2.6	37.78	2,450	22,515,282	5.1	46.88
County 21									
Cnty of Two Hills	3,380	24	167,862	7.1	49.66	209	1,575,152	6.1	46.60
Two Hills	1,330	—	—	—	—	20	64,859	1.5	4.87
Derwent	150	1	1,074	6.7	7.16	4	15,319	3.0	10.21
Myrnam	423	—	—	—	—	9	15,754	2.1	3.72
Willingdon	404	1	200	2.4	.49	11	67,586	2.7	16.72
Hairy Hill	72	—	—	—	—	5	1,046,482	6.9	1,453.44
Total	**5,759**	**26**	**169,136**	**4.5**	**29.36**	**258**	**2,785,152**	**4.4**	**48.36**
County 22									
Cnty of Camrose	7,564	48	604,556	6.3	79.92	512	4,709,810	6.7	62.26
Bashaw	875	2	1,122	2.2	1.28	26	145,663	2.9	16.64
Bawlf	368	—	—	—	—	14	1,615,434	3.8	438.97
Bittern Lake	153	—	—	—	—	3	33,815	1.9	22.10
Edberg	150	—	—	—	—	3	69,208	2.0	46.13
Ferintosh	155	—	—	—	—	1	4,500	.6	2.90
Hay Lakes	318	—	—	—	—	11	25,554	3.4	8.03
New Norway	276	3	12,176	10.9	44.11	11	18,588	3.5	6.73
Rosalind	197	1	6,000	5.0	30.45	7	70,067	3.5	35.56
Total	**10,056**	**54**	**623,854**	**5.4**	**62.03**	**588**	**6,692,639**	**5.8**	**66.55**

Municipal Fire Loss

for the Year Ending December 31, 1986 (cont'd)

Municipality	1986 Population	1986 Fire Count	1986 Amount Of Loss	1986 Fire Rate	1986 Per Capita Loss	10 Year Total Fire Count	10 Year Total Amount Of Loss	10 Year Average Fire Rate	10 Year Average Per Capita Loss
County 23									
Cnty of Red Deer	13,664	82	976,287	6.0	71.44	942	7,590,482	6.8	55.55
Innisfail	5,600	13	120,416	2.3	21.50	155	1,876,885	2.8	33.51
Sylvan Lake	3,779	12	50,356	3.1	13.32	125	1,091,602	3.3	28.88
Bowden	971	1	748	1.0	.77	27	288,973	2.7	29.76
Delburne	564	1	1,600	1.7	2.83	19	157,642	3.3	27.95
Elnora	251	—	—	—	—	6	46,847	2.2	18.66
Penhold	1,588	—	—	—	—	40	1,034,181	2.5	65.12
Norglenwold	113	—	—	—	—	3	166,500	2.6	147.34
Jarvis Bay	55	—	—	—	—	—	—	—	—
Total	**26,585**	**109**	**1,149,407**	**4.1**	**43.23**	**1,317**	**12,253,112**	**4.9**	**46.09**
County 24									
Cnty of Vermilion River	7,533	47	1,022,575	6.2	135.74	543	7,203,844	7.2	95.63
Kitscoty	626	—	—	—	—	9	27,136	1.4	4.33
Vermilion	3,818	8	64,987	2.0	17.02	126	1,092,907	3.3	28.62
Dewberry	210	—	—	—	—	6	992,528	3.2	472.63
Marwayne	500	3	13,990	6.0	27.98	19	70,680	3.8	14.13
Paradise Valley	186	1	33,749	5.4	181.44	4	63,730	2.1	34.26
Total	**12,873**	**59**	**1,135,301**	**4.6**	**88.19**	**707**	**9,450,825**	**5.5**	**73.41**
County 25									
Cnty of Leduc	13,296	36	770,088	2.7	57.91	706	9,353,130	5.3	70.34
Calmar	1,130	4	87,857	3.5	77.74	31	276,550	2.7	24.47
Devon	3,931	8	35,473	2.0	9.02	68	549,893	1.7	13.98
Breton	534	—	—	—	—	10	77,660	1.8	14.54
New Sarepta	461	1	1,500	2.1	3.25	13	105,890	2.8	22.96
Thorsby	737	—	—	—	—	24	695,047	3.2	94.30
Warburg	552	1	712	1.8	1.28	11	38,205	1.9	6.92
Itaska Beach	6	—	—	—	—	6	180,614	100.0	3,010.23
Golden Days	58	—	—	—	—	6	231,634	13.0	399.36
Sundance Beach	14	—	—	—	—	1	10,651	7.1	76.07
Beaumont	3,923	3	8,109	.8	2.06	33	126,781	.8	3.23
Total	**24,642**	**53**	**903,739**	**2.1**	**36.67**	**909**	**11,646,055**	**3.7**	**47.26**
County 26									
Cnty of Lethbridge	8,185	47	254,766	5.7	31.12	664	5,118,174	8.1	62.53
Coaldale	4,853	15	30,980	3.1	6.38	107	1,265,273	2.2	26.07
Picture Butte	1,553	5	77,059	3.2	49.61	33	173,133	2.1	11.14
Barons	334	1	100	2.9	.29	6	25,242	1.7	7.55
Nobleford	528	1	3,543	1.9	6.47	17	81,267	3.1	14.85
Coalhurst	1,273	3	4,878	2.3	3.83	32	273,260	2.5	21.46
Total	**16,726**	**72**	**371,326**	**4.3**	**22.20**	**859**	**6,936,349**	**5.1**	**41.47**

Municipal Fire Loss

for the Year Ending December 31, 1986 (cont'd)

Municipality	1986 Population	1986 Fire Count	1986 Amount Of Loss	1986 Fire Rate	1986 Per Capita Loss	10 Year Total Fire Count	10 Year Total Amount Of Loss	10 Year Average Fire Rate	10 Year Average Per Capita Loss
County 27									
Cnty of Minburn	4,041	17	141,312	4.2	34.96	275	2,657,349	6.8	65.75
Minburn	143	1	5,430	6.9	37.97	7	123,621	4.8	86.44
Mannville	799	1	256	1.2	.32	19	118,575	2.3	14.84
Vegreville	5,251	14	23,247	2.6	4.42	142	637,016	2.7	12.13
Innisfree	255	—	—	—	—	2	1,999	.7	.78
Lavoy	134	—	—	—	—	5	30,381	3.7	22.67
Total	**10,623**	**33**	**170,245**	**3.1**	**16.02**	**450**	**3,568,941**	**4.2**	**33.59**
County 28									
Cnty of Lac Ste. Anne	7,722	23	399,931	2.9	51.79	386	4,684,051	4.9	60.65
Onoway	669	1	344	1.4	.51	24	172,372	3.5	25.76
Mayerthorpe	1,475	2	8,500	1.3	5.76	34	742,050	2.3	50.30
Alberta Beach	513	11	37,042	21.4	72.20	45	387,422	8.7	75.52
Castle Island	5	—	—	—	—	—	—	—	—
Sunset Point	95	—	—	—	—	3	9,583	3.0	10.08
Sangudo	405	1	1,000	2.4	2.46	12	52,988	2.9	13.08
West Cove	46	—	—	—	—	2	68,050	4.3	147.93
Yellowstone	85	2	118,000	23.5	1,388.23	3	119,000	3.2	140.00
Ross Haven	59	—	—	—	—	5	100,677	8.4	170.63
Val Quentin	107	1	20,909	9.3	195.41	4	26,288	3.7	24.56
Silver Sands	72	—	—	—	—	3	4,051	4.1	5.62
Nakamun Park	6	—	—	—	—	—	—	—	—
South View	33	—	—	—	—	—	—	—	—
Total	**11,292**	**41**	**585,726**	**3.6**	**51.87**	**521**	**6,366,532**	**4.6**	**56.38**
County 29									
Cnty of Flagstaff	4,507	34	331,094	7.5	73.46	427	2,896,761	9.4	64.27
Sedgewick	923	—	—	—	—	15	244,382	1.6	26.47
Alliance	208	—	—	—	—	9	16,628	4.3	7.99
Daysland	709	3	109,078	4.2	153.84	22	195,771	3.1	27.61
Hardisty	600	1	1,647	1.6	2.74	41	213,350	6.8	35.55
Forestburg	973	—	—	—	—	16	45,380	1.6	4.66
Galahad	176	—	—	—	—	3	1,135	1.6	.64
Heisler	212	—	—	—	—	8	89,672	3.7	42.29
Killam	1,001	1	1,500	.9	1.49	22	402,967	2.1	40.25
Lougheed	283	2	2,516	7.1	8.89	7	19,649	2.6	6.94
Strome	281	—	—	—	—	17	450,109	6.0	160.18
Total	**9,873**	**41**	**445,835**	**4.2**	**45.15**	**587**	**4,575,804**	**5.9**	**46.34**
County 30									
Cnty of Lamont	4,687	54	320,381	11.5	68.35	287	2,603,077	6.1	55.53
Lamont	1,673	3	2,900	1.7	1.73	28	387,296	1.6	23.14
Chipman	281	—	—	—	—	7	127,412	2.4	45.34
Mundare	655	4	35,660	6.1	54.44	20	123,597	3.0	18.86
Andrew	569	2	2,912	3.5	5.11	24	781,972	4.2	137.42
Bruderheim	1,238	—	—	—	—	29	246,128	2.3	19.88
Total	**9,103**	**63**	**361,853**	**6.9**	**39.75**	**395**	**4,269,482**	**4.3**	**46.90**

Municipal Fire Loss

for the Year Ending December 31, 1986 (cont'd)

Municipality	1986 Popu-lation	1986 Fire Count	1986 Amount Of Loss	1986 Fire Rate	1986 Per Capita Loss	10 Year Total Fire Count	10 Year Total Amount Of Loss	10 Year Average Fire Rate	10 Year Average Per Capita Loss
County 31									
Cnty of Parkland	23,950	96	3,367,798	4.0	140.61	1,595	26,059,707	6.6	108.80
Stony Plain	5,576	21	36,845	3.8	6.60	92	344,471	1.7	6.17
Betula Beach	8	—	—	—	—	—	—	—	—
Edmonton Beach	324	1	799	3.1	2.46	8	158,354	2.4	48.87
Entwistle	468	3	22,500	6.4	48.07	11	160,441	2.3	34.28
Kapasiwin	4	—	—	—	—	4	503	100.0	12.57
Lakeview	22	—	—	—	—	—	—	—	—
Point Alison	3	—	—	—	—	—	—	—	—
Seba Beach	124	—	—	—	—	4	50,601	3.2	40.80
Drayton Valley	4,982	15	57,005	3.0	11 44	189	833,795	3.7	16.73
Wabamun	705	—	—	—	—	11	73,637	1.5	10.44
Total	**36,166**	**136**	**3,484,947**	**3.8**	**96.35**	**1,914**	**27,681,509**	**5.3**	**76.54**
M.D. 6									
M.D. of Cardston	4,360	16	122,016	3.7	27.98	275	2,728,674	6.4	62.58
Cardston	3,546	12	1,999,778	3.3	563.95	107	2,833,031	3.0	79.89
Magrath	1,576	9	73,474	5.7	46.62	69	364,486	4.3	23.12
Glenwood	302	2	80,575	6.6	266.80	10	89,357	3.3	29.58
Hillspring	251	3	10,166	12.0	40.50	8	31,559	3.6	12.57
Total	**10,035**	**42**	**2,286,009**	**4.2**	**227.80**	**469**	**6,047,107**	**4.7**	**60.26**
M.D. 9									
M.D. of Pincher Creek	2,970	22	533,947	7.4	179.78	189	3,457,806	6.3	116.42
Pincher Creek	3,712	6	14,464	1.6	3.89	88	351,757	2.3	9.47
Cowley	304	2	56,726	6.5	186.59	8	79,711	2.6	26.22
Total	**6,986**	**30**	**605,137**	**4.2**	**86.62**	**285**	**3,889,274**	**4.0**	**55.67**
M.D. 14									
M.D. of Taber	5,637	44	700,450	7.8	124.25	469	4,547,551	8.3	80.67
Taber	6,384	10	62,303	1.5	9.75	192	8,892,878	3.0	139.29
Vauxhall	1,076	3	213,797	2.7	198.69	17	315,778	1.5	29.34
Grassy Lake	228	17	1,633,400	74.6	7,164.03	26	1,668,343	12.3	731.72
Barnwell	373	1	12,311	2.6	33.00	4	25,883	1.0	6.93
Total	**13,698**	**75**	**2,622,261**	**5.5**	**191.43**	**708**	**15,450,433**	**5.1**	**112.79**
M.D. 26									
M.D. of Willow Creek	4,534	27	117,276	5.9	25.86	428	2,434,277	9.4	53.68
Stavely	548	1	6,237	1.8	11.38	13	483,379	2.3	88.20
Nanton	1,671	4	89,213	2.3	53.38	44	885,287	2.6	52.97
Claresholm	3,493	7	56,545	2.0	16.18	163	1,727,294	4.6	49.45
Fort MacLeod	3,139	6	7,034	1.9	2.24	104	710,381	3.3	22.63
Granum	399	1	1,070	2.5	2.68	30	4,396,792	7.5	1,101.95
Total	**13,784**	**46**	**277,375**	**3.3**	**20.12**	**782**	**10,637,410**	**5.6**	**77.17**

Municipal Fire Loss

for the Year Ending December 31, 1986 (cont'd)

Municipality	1986 Population	1986 Fire Count	1986 Amount Of Loss	1986 Fire Rate	1986 Per Capita Loss	10 Year Total Fire Count	10 Year Total Amount Of Loss	10 Year Average Fire Rate	10 Year Average Per Capita Loss
M.D. 31									
M.D. of Foothills	9,685	39	1,021,983	4.0	105.52	506	7,075,880	5.2	73.06
High River	5,114	5	14,462	.9	2.82	107	2,101,199	2.1	41.09
Black Diamond	1,450	4	8,590	2.7	5.92	38	316,563	2.6	21.83
Okotoks	5,201	9	73,839	1.7	14.19	83	720,843	1.6	13.86
Blackie	343	1	50,000	2.9	145.77	4	90,016	1.1	26.24
Cayley	232	—	—	—	—	—	—	—	—
Turner Valley	1,298	5	102,210	3.8	78.74	30	596,011	2.3	45.92
Longview	292	1	5,300	3.4	18.15	6	170,240	2.0	58.30
Total	**23,615**	**64**	**1,276,384**	**2.7**	**54.04**	**774**	**11,070,752**	**3.2**	**46.88**
M.D. 34									
M.D. of Acadia	604	5	6,253	8.2	10.35	17	136,003	2.8	22.51
Empress	254	1	10,703	3.9	42.13	11	340,332	4.3	133.98
Total	**858**	**6**	**16,956**	**6.9**	**19.76**	**28**	**476,335**	**3.2**	**55.51**
M.D. 44									
M.D. of Rocky View	16,703	119	1,115,353	7.1	66.77	1,717	17,752,586	10.3	106.28
Beiseker	648	—	—	—	—	27	558,637	4.1	86.20
Cochrane	4,044	16	57,416	3.9	14.19	128	1,396,707	3.1	34.53
Crossfield	1,401	6	14,422	4.2	10.29	25	374,088	1.8	26.70
Irricana	726	—	—	—	—	11	43,530	1.5	5.99
Chestermere Lake	578	3	94,176	5.2	162.93	16	383,477	2.7	66.34
Total	**24,100**	**144**	**1,281,367**	**6.0**	**53.16**	**1,924**	**20,509,025**	**8.0**	**85.10**
M.D. 47									
M.D. of Starland	2,109	11	158,346	5.2	75.08	132	1,136,374	6.2	53.88
Morrin	267	—	—	—	—	5	109,777	1.9	41.11
Delia	239	—	—	—	—	6	128,637	2.5	53.82
Munson	148	—	—	—	—	2	1,949	1.3	1.31
Rumsey	93	—	—	—	—	4	41,898	4.3	45.05
Total	**2,856**	**11**	**158,346**	**3.8**	**55.44**	**149**	**1,418,635**	**5.2**	**49.67**
M.D. 48									
M.D. of Kneehill	4,831	24	300,186	4.9	62.13	327	4,139,996	6.7	85.69
Three Hills	3,539	4	40,499	1.1	11.44	76	487,348	2.1	13.77
Acme	492	2	189	4.0	.38	13	102,212	2.6	20.77
Trochu	880	—	—	—	—	5	328,836	.5	37.37
Carbon	438	2	5,250	4.5	11.98	5	6,924	1.1	1.58
Linden	461	—	—	—	—	5	1,037	1.0	.22
Torrington	230	1	4,946	4.3	21.50	12	43,074	5.2	18.72
Total	**10,871**	**33**	**351,070**	**3.0**	**32.29**	**461**	**5,109,427**	**4.2**	**47.00**
M.D. 52									
M.D. of Provost	2,708	30	208,651	11.0	77.04	293	2,432,289	10.8	89.81
Provost	1,779	4	12,424	2.2	6.98	64	1,446,062	3.5	81.28
Amisk	217	—	—	—	—	2	8,400	.9	3.87
Czar	182	1	49,760	5.5	273.40	7	56,647	3.7	31.12
Hughenden	263	5	89,803	19.0	341.45	15	134,713	5.7	51.22
Total	**5,149**	**40**	**360,638**	**7.8**	**70.04**	**381**	**4,078,111**	**7.3**	**79.20**

Municipal Fire Loss

for the Year Ending December 31, 1986 (cont'd)

Municipality	1986					10 Year Total		10 Year Average	
	Population	Fire Count	Amount Of Loss	Fire Rate	Per Capita Loss	Fire Count	Amount Of Loss	Fire Rate	Per Capita Loss
M.D. 61									
M.D. of Wainwright	3,874	43	293,510	11.0	75.76	359	3,419,047	9.2	88.25
Wainwright	4,643	11	54,886	2.4	11.82	166	1,321,380	3.6	28.45
Irma	475	—	—	—	—	21	210,007	4.4	44.21
Chauvin	371	—	—	—	—	14	1,083,298	3.7	291.99
Edgerton	399	—	—	—	—	16	216,298	4.1	54.21
Total	**9,762**	**54**	**348,396**	**5.5**	**35.68**	**576**	**6,250,030**	**5.9**	**64.02**
M.D. 87									
M.D. of Bonnyville	9,808	37	403,970	3.7	41.18	434	4,063,272	4.4	41.42
Bonnyville	5,575	12	62,981	2.2	11.29	156	2,811,101	2.9	50.42
Cold Lake	3,059	8	12,420	2.6	4.06	79	621,917	2.8	20.33
Grand Centre	3,506	14	61,421	3.9	17.51	132	1,835,593	3.7	52.35
Bonnyville Beach	63	—	—	—	—	2	20,176	3.3	32.02
Glendon	471	—	—	—	—	11	22,551	2.3	4.78
Pelican Narrows	65	—	—	—	—	3	7,707	4.6	11.85
Total	**22,547**	**71**	**540,792**	**3.1**	**23.98**	**817**	**9,382,317**	**3.7**	**41.61**
M.D. 90									
M.D. of Sturgeon	13,979	62	953,473	4.4	68.20	979	14,759,842	7.0	105.58
Morinville	5,293	10	50,869	1.9	9.61	82	636,590	1.5	12.02
Gibbons	2,620	4	184,467	1.5	70.40	43	416,089	1.6	15.88
Sandy Beach	78	1	160,000	12.8	2,051.28	2	182,000	2.5	233.33
Bon Accord	1,425	1	1,000	.7	.70	21	112,943	1.4	7.92
Legal	1,042	3	23,659	2.8	22.70	29	208,320	2.7	19.99
Redwater	2,179	3	4,479	1.4	2.05	36	374,305	1.6	17.17
Total	**26,616**	**84**	**1,377,947**	**3.2**	**51.77**	**1,192**	**16,690,089**	**4.4**	**62.70**
M.D. 92									
M.D. of Westlock	7,059	17	193,928	2.4	27.47	337	5,013,070	4.7	71.01
Westlock	4,432	14	664,872	3.1	150.01	92	1,986,970	2.0	44.83
Clyde	406	2	5,847	4.9	14.40	17	120,490	4.1	29.67
Larkspur	7	—	—	—	—	—	—	—	
Total	**11,904**	**33**	**864,647**	**2.7**	**72.63**	**446**	**7,120,530**	**3.7**	**59.81**
M.D. 130									
M.D. of Smoky River	2,858	8	95,167	2.7	33.29	209	2,460,863	7.3	86.10
Falher	1,188	3	196,560	2.5	165.45	35	534,574	2.9	44.99
Girouxville	325	1	901	3.0	2.77	19	472,112	5.8	145.26
McLennan	1,176	4	79,119	3.4	67.27	37	1,081,863	3.1	91.99
Donnelly	407	1	450	2.4	1.10	22	194,005	5.4	47.66
Total	**5,954**	**17**	**372,197**	**2.8**	**62.51**	**322**	**4,743,417**	**5.4**	**79.66**
M.D. 133									
M.D. of Spirit River	891	14	471,086	15.7	528.71	136	1,695,436	15.2	190.28
Spirit River	1,104	4	62,361	3.6	56.48	34	236,760	3.0	21.44
Rycroft	734	3	8,973	4.0	12.22	23	675,080	3.1	91.97
Total	**2,729**	**21**	**542,420**	**7.6**	**198.76**	**193**	**2,607,276**	**7.0**	**95.53**

Municipal Fire Loss

for the Year Ending December 31, 1986 (cont'd)

Municipality	1986 Population	1986 Fire Count	1986 Amount Of Loss	1986 Fire Rate	1986 Per Capita Loss	10 Year Total Fire Count	10 Year Total Amount Of Loss	10 Year Average Fire Rate	10 Year Average Per Capita Loss
M.D. 135									
M.D. of Peace River	1,520	18	44,981	11.8	29.59	192	1,289,232	12.6	84.81
Berwyn	674	—	—	—	—	5	153,029	.7	22.70
Grimshaw	2,645	7	41,210	2.6	15.58	75	1,051,002	2.8	39.73
Peace River	6,355	19	408,025	3.0	64.20	269	4,000,908	4.4	62.95
Total	**11,194**	**44**	**494,216**	**3.9**	**44.15**	**541**	**6,494,171**	**4.9**	**58.01**
M.D. 136									
M.D. of Fairview	1,889	28	174,130	14.8	92.18	198	1,989,706	10.4	105.33
Fairview	3,234	11	72,101	3.4	22.29	119	3,951,886	3.6	122.19
Total	**5,123**	**39**	**246,231**	**7.6**	**48.06**	**317**	**5,941,592**	**6.1**	**115.97**
M.D. 99									
M.D. of Clearwater	9,201	45	851,185	4.8	92.51	473	7,204,916	5.1	78.30
Rocky Mountain House	5,261	18	441,188	3.4	83.86	155	2,185,751	3.0	41.54
Caroline	431	—	—	—	—	13	45,220	3.0	10.49
Total	**14,893**	**63**	**1,292,373**	**4.2**	**86.77**	**641**	**9,435,887**	**4.3**	**63.35**
M.D. 1									
M.D. of Cypress	4,703	30	298,403	6.3	63.44	563	6,430,704	11.9	136.73
Irvine	360	—	—	—	—	10	85,265	2.7	23.68
Redcliff	3,814	10	98,585	2.6	25.84	135	900,623	3.5	23.61
Total	**8,877**	**40**	**396,988**	**4.5**	**44.72**	**708**	**7,416,592**	**7.9**	**83.54**
I.D. #4	**176**	**1**	**282**	**5.6**	**1.60**	**14**	**134,140**	**7.9**	**76.21**
I.D. #5	**122**	**3**	**42,675**	**24.5**	**349.79**	**4**	**388,202**	**3.2**	**318.19**
I.D. #6	119	—	—	—	—	48	888,504	40.3	746.64
Crowsnest Pass	7,577	17	114,604	2.2	15.12	244	3,418,055	3.2	45.11
Total	**7,696**	**17**	**114,604**	**2.2**	**14.89**	**292**	**4,306,559**	**3.7**	**55.95**
I.D. #7	**1,180**	**5**	**25,300**	**4.2**	**21.44**	**88**	**1,487,117**	**7.4**	**126.02**
I.D. #8	1,158	7	92,027	6.0	79.47	98	2,680,875	8.4	231.50
Ghost Lake	42	—	—	—	—	5	12,624	11.9	30.05
Canmore	4,058	8	77,264	2.0	19.03	101	1,126,265	2.5	27.75
Waiparous	23	—	—	—	—	—	—	—	—
Total	**5,281**	**15**	**169,291**	**2.8**	**32.05**	**204**	**3,819,764**	**3.9**	**72.33**
I.D. #9	1,211	4	5,156	3.3	4.25	91	1,031,584	7.5	85.18
Banff	5,738	2	85,269	.3	14.86	163	3,571,054	2.8	62.23
Total	**6,949**	**6**	**90,425**	**.9**	**13.01**	**254**	**4,602,638**	**3.6**	**66.23**
I.D. #12	10	3	4,789	300.0	478.90	58	855,158	580.0	8,551.58
Jasper	3,960	1	200	.2	.05	100	905,373	2.5	22.86
Total	**3,970**	**4**	**4,989**	**1.0**	**1.25**	**158**	**1,760,531**	**3.9**	**44.34**

Municipal Fire Loss

for the Year Ending December 31, 1986 (cont'd)

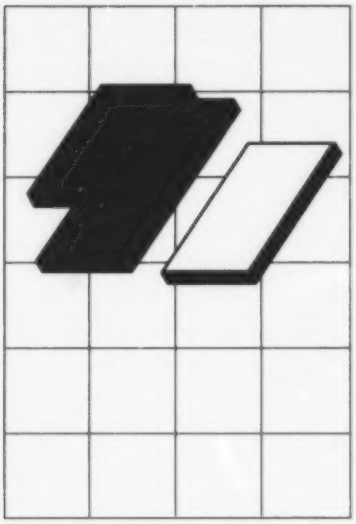
Municipality	1986 Population	1986 Fire Count	1986 Amount Of Loss	1986 Fire Rate	1986 Per Capita Loss	10 Year Total Fire Count	10 Year Total Amount Of Loss	10 Year Average Fire Rate	10 Year Average Per Capita Loss
I.D. #13	**36**	—	—	—	—	**7**	**87,915**	**19.4**	**244.20**
I.D. #14	8,119	65	8,398,876	8.0	1,034.47	615	25,647,565	7.5	315.89
Wildwood	450	1	200	2.2	.44	11	147,061	2.4	32.68
Evansburg	769	2	2,400	2.6	3.12	26	224,171	3.3	29.15
Edson	7,110	8	174,472	1.1	24.53	165	1,777,213	2.3	24.99
Hinton	8,904	20	225,260	2.2	25.29	363	3,652,617	4.0	41.02
Total	**25,352**	**96**	**8,801,208**	**3.8**	**347.16**	**1,180**	**31,448,627**	**4.6**	**124.04**
I.D. #15	2,670	22	383,083	8.2	143.47	225	3,674,224	8.4	137.61
Whitecourt	5,497	12	155,148	2.2	28.22	263	2,430,362	4.8	44.21
Ft. Assiniboine	214	—	—	—	—	16	89,149	7.4	41.65
Total	**8,381**	**34**	**538,231**	**4.1**	**64.22**	**504**	**6,193,735**	**6.0**	**73.90**
I.D. #16	5,350	56	3,251,348	10.4	607.72	515	20,130,471	9.6	376.27
Valleyview	2,232	5	95,414	2.2	42.74	77	1,092,525	3.4	48.94
Fox Creek	1,978	3	1,950	1.5	.98	39	1,265,622	1.9	63.98
Grande Cache	4,624	1	500	.2	.10	90	793,929	1.9	17.16
Total	**14,184**	**65**	**3,349,212**	**4.5**	**236.12**	**721**	**23,282,547**	**5.0**	**164.14**
I.D. #17	12,041	132	2,967,203	10.9	246.42	994	23,778,725	8.2	197.48
High Prairie	2,580	8	41,423	3.1	16.05	107	9,575,457	4.1	371.14
Swan Hills	2,497	7	72,087	2.8	28.86	60	906,805	2.4	36.31
Kinuso	285	1	1,220	3.5	4.28	10	78,075	3.5	27.39
Slave Lake	5,434	8	17,963	1.5	3.30	146	817,493	3.0	15.04
Nampa	435	1	37,727	2.2	86.72	10	1,008,539	2.2	231.84
Total	**23,272**	**157**	**3,137,623**	**6.7**	**134.82**	**1,327**	**36,165,094**	**5.8**	**155.40**
I.D. #18	9,605	85	5,058,519	8.8	526.65	893	127,829,411	9.2	1,330.86
Lac La Biche	2,242	13	41,771	5.7	18.63	104	910,775	4.6	40.62
Plamondon	271	—	—	—	—	4	1,070,866	1.4	395.15
Total	**12,118**	**98**	**5,100,290**	**8.0**	**420.88**	**1,001**	**129,811,052**	**8.2**	**1,071.22**
I.D. #19	1,757	4	269,753	2.2	153.53	146	2,424,534	8.3	137.99
Wanham	238	1	10,697	4.2	44.94	21	137,742	7.8	57.87
Eaglesham	203	1	613	4.9	3.01	4	9,898	1.9	4.87
Total	**2,198**	**6**	**281,063**	**2.7**	**127.87**	**171**	**2,572,174**	**7.6**	**117.02**
I.D. #20	3,000	6	19,917	2.0	6.63	123	1,706,626	4.1	56.88
I.D. #21	2,979	27	347,920	9.0	116.79	193	2,806,186	6.4	94.19
Hines Creek	529	—	—	—	—	29	831,145	5.4	157.11
Total	**3,508**	**27**	**347,920**	**7.6**	**99.17**	**222**	**3,637,331**	**6.3**	**103.68**
I.D. #22	4,250	30	894,453	7.0	210.45	294	4,429,514	6.9	104.22
Manning	1,262	5	101,141	3.9	80.14	37	320,411	2.9	25.38
Total	**5,512**	**35**	**995,594**	**6.3**	**180.62**	**331**	**4,749,925**	**6.0**	**86.17**

Municipal Fire Loss

for the Year Ending December 31, 1986 (cont'd)

Municipality	1986 Population	1986 Fire Count	1986 Amount Of Loss	1986 Fire Rate	1986 Per Capita Loss	10 Year Total Fire Count	10 Year Total Amount Of Loss	10 Year Average Fire Rate	10 Year Average Per Capita Loss
I.D. #23	6,563	43	904,348	6.5	137.79	542	10,483,233	8.2	159.73
High Level	3,003	19	598,476	6.3	199.29	112	3,790,099	3.9	126.21
Rainbow Lake	1,008	1	7,750	1.0	7.68	21	1,566,185	2.0	155.37
Total	**10,574**	**63**	**1,510,574**	**6.0**	**142.85**	**675**	**15,839,517**	**6.4**	**149.79**
I.D. #24	**188**	—	—	—	—	**6**	**5,271,815**	**3.1**	**2,804.15**
Indian Reserves	**45,380**	**84**	**1,608,817**	**1.9**	**35.45**	**831**	**15,564,202**	**18.3**	**342.97**
S.A. #2	2,565	18	103,952	7.0	40.52	154	1,634,537	6.0	63.72
Hanna	3,036	2	1,687	.6	.55	72	835,952	2.3	27.53
Total	**5,601**	**20**	**105,639**	**3.5**	**18.86**	**226**	**2,470,489**	**4.0**	**44.10**
S.A. #3	1,701	9	270,083	5.2	158.77	102	1,389,761	5.9	81.70
Cereal	258	1	5,500	3.8	21.31	4	135,168	1.5	52.39
Oyen	1,015	4	9,958	3.9	9.81	29	171,029	2.8	16.85
Youngstown	297	1	2,200	3.3	7.40	9	72,768	3.0	24.50
Total	**3,271**	**15**	**287,741**	**4.6**	**87.96**	**144**	**1,768,726**	**4.4**	**54.07**
S.A. #4	1,776	13	99,117	7.3	55.80	112	1,437,673	6.3	80.95
Veteran	318	—	—	—	—	13	1,868,746	4.0	587.65
Consort	672	2	4,506	2.9	6.70	20	698,140	2.9	103.88
Total	**2,766**	**15**	**103,623**	**5.4**	**37.46**	**145**	**4,004,559**	**5.2**	**144.77**
Cities									
Airdrie	10,431	12	182,728	1.1	17.51	142	1,360,041	1.3	13.03
Calgary	625,143	1,995	16,004,688	3.1	25.60	29,129	159,286,998	4.6	25.48
Camrose	12,751	41	379,261	3.2	29.74	321	2,611,202	2.5	20.47
Drumheller	6,671	22	102,887	3.2	15.42	203	2,626,471	3.0	39.37
Edmonton	571,506	1,362	11,688,272	2.4	20.45	16,461	143,386,662	2.9	25.08
Fort McMurray	36,810	100	718,542	2.7	19.52	1,786	11,585,866	4.8	31.47
Fort Saskatchewan	12,474	22	2,442,682	1.7	195.82	270	12,310,821	2.1	98.69
Grande Prairie	26,270	132	688,768	5.0	26.21	1,599	8,516,661	6.3	32.41
Leduc	13,214	17	57,324	1.3	4.33	315	2,482,938	2.4	18.79
Lethbridge	60,310	206	666,189	3.4	11.04	2,924	16,593,193	4.8	27.51
Lloydminster	10,557	25	224,584	2.4	21.27	279	3,386,852	26.4	320.81
Medicine Hat	42,182	129	714,467	3.1	16.93	2,354	17,131,886	5.6	40.61
Red Deer	54,192	147	1,523,361	2.7	28.11	1,895	10,993,263	3.6	20.28
St. Albert	36,453	51	145,325	1.4	3.98	1,397	6,481,689	3.8	17.78
Spruce Grove	11,897	25	43,361	2.1	3.64	370	2,722,665	3.1	22.88
Wetaskiwin	10,103	18	63,381	1.8	6.27	233	8,768,138	2.3	86.78

SECTION 3



Glossary

Fire Commissioner's
Statistical Report

1 9 8 6

Glossary

Act or Omission
The human element by which someone has done something (an act) or failed to do something (an omission). The act or omission indicates whether the fire was deliberate, neglectful or accidental.

Incendiary or Set Fires - includes arson, suspected incendiarism, riot, mischief or vandalism.

Misuse of Source of Ignition - includes disposal of smoker's material, thawing, inadequate control of an open fire, children playing, welding or cutting too close to combustible material or torch too close to combustible material.

Misuse of Material Ignited - includes fuel spilled accidentally, improper fuelling technique, cleaning or washing parts, improper container, overheating cooking oil, combustible placed too close to heat, and improper storage.

Mechanical and Electrical Failure or Malfunction - includes part failure, automatic or manual control failure, electrical short circuit and part worn out.

Construction, Design or Installation Deficiency - includes construction or design deficiency, installation too close to a combustible, other installation deficiency and overfusing.

Misuse of Equipment - overfuelling, includes any misuse of equipment or tools.

Human Failing - includes person asleep, temporary loss of judgement, physical disability, panic, influence of alcohol or drugs and ignorance of hazard.

Area of Origin
The area of a building or vehicle where the fire started.

Means of Egress - the area allowing an individual transit or a way of going out. Includes hallway, stairway, escalator, lobby and elevator.

Assembly, Sales Area - areas where groups of people gather. Includes theatre, arena, lounge, living room, sales or show room, library, museum and sports facility.

Function Area - the area where a mode of action or activity is undertaken. Includes sleeping area, dining area, bar, washroom, office, laboratory, printing and photographic reproduction, kitchen, laundry room, operating room, performance area and manufacturing area.

Storage Area - the area inside a building where items are stored. Includes product storage area, closet, equipment area, records storage area, shipping and receiving area, trash and rubbish area, vehicle garage and agricultural product storage.

Service Facilities - conveyance items such as dumbwaiters, service shafts, laundry and garbage chutes, heating and cooking ducts and chimneys or gas vents.

Structural Area - includes crawl space, balcony, ceiling and floor assembly, ceiling and roof assembly, wall assembly, exterior wall or exterior roof and awning or canopy.

Vehicle Area - includes engine area, fuel area, control area, passenger area and cargo area.

Outside Area - includes open area such as lawn, field or park, court, patio, parking area, outdoor storage area and trash or rubbish area.

Fuel or Energy
Is the fuel associated with the source of ignition. Includes coal, wood, fuel oil, gasoline, natural gas or other fuel gases, smoker's material, electricity, lightning or exposures.

Injuries
A person accidentally injured as a direct result of a fire (a member of the fire department accidentally injured while in the process of fighting a fire or injured as a result of an accident while en route to or returning from the scene of an actual fire is considered a fire action injury.)

Minor Injury - an injury that does not require hospitalization of over a 24-hour period or absence from work of not more than one full day.

Light Injury - an injury that requires admission to a hospital of over 24 to 48 hours and/or absence from work for a period of two to fifteen days.

Serious Injury - an injury that requires admission to a hospital for a period of more than 48 hours and/or an absence from work for a period exceeding fifteen days.

Material First Ignited

The actual material that ignites and creates the fire condition.

Structural Components, Finish Materials - includes roof covering, wall covering, floor covering, structural component, ceiling covering and insulation.

Furniture, Furnishings - includes furniture, ironing board, mattress, bedding, drapery and broom, mop or brush.

Clothing, Textiles - includes clothing, fabric, fur and tarpaulin.

Wood, Paper Products - includes wood, wood shavings, paper, cardboard and paper stock.

Flammable Liquids - includes gasoline, fuel oil, flammable liquids, paint, varnish, tar, asphalt, polish and wax.

Flammable Gases - includes natural gas, propane, anaesthetic gas, acetylene and hydrogen.

Chemicals - includes starch, flour, cellulose nitrate, plastic, oxidizing material, magnesium and alloys, titanium, natural or synthetic rubber and ammonium nitrate.

Agricultural, Forestry Products - includes fibres, grains, hay, trees, felled timber, grass, fertilizer and manure.

Miscellaneous - includes coal, garbage, trash, oily rags and artificial trees.

Property Classification

The principal use or occupancy of the building.

Assembly - property for the gathering of persons for civic, political, travel, religious, social, educational or recreational purposes. Includes theatres, amusement or recreation places, schools, colleges, universities, churches, social or sport clubs, libraries and museums, eating establishments and passenger terminals.

Institutional - property for medical treatment, or care of persons suffering from illness, disease or infirmity, for the care of infants, convalescents or aged persons and for penal or corrective purposes. Includes prisons, jails, reformatories, homes for the aged, children's hospitals, hospitals and clinics.

Residential - property in which sleeping accommodation is provided for normal residential purposes. Includes one and two family dwellings, apartments, rooming or boarding houses, hotels, motels, dormitories and mobile homes.

Business and Personal Service - property for conducting business. Includes offices, personal services such as hairdressing and data processing or storage facilities.

Mercantile - property used for the display and sale of merchandise. Includes food and beverage sales, textile and clothing sales, furniture and appliance sales, books and specialty sales, recreational and hobby supply sales, repair shops, laundries, vehicle and boat sales and department or variety stores.

Industrial Manufacturing Properties - property where raw materials are transformed into new products and where the component parts of manufactured products are assembled. Includes chemical, petroleum, paint and plastic manufacturing; wood, furniture, and paper manufacturing; metal product and electrical equipment manufacturing; food processing; beverage, tobacco, soap and margarine manufacturing; textile manufacturing; footwear and wearing apparel manufacturing; and vehicle and related equipment manufacturing.

Storage Properties - property used primarily for the storage or sheltering of goods, merchandise, products, vehicles, or animals. Includes agricultural product storage; textile, fibre and clothing storage; processed food and beverage storage; flammable liquids, gas and petroleum products storage; wood, furniture, and paper products storage; chemical, paint and plastic storage; metal products, machinery, and electrical appliance storage and vehicle storage.

Special Property-Transportation Equipment - mainly outdoor property and transport equipment. Includes outdoor property, piers, buildings under construction or demolition, watercraft, rail transport vehicles, ground transport vehicles, aircraft and other special equipment.

Miscellaneous - includes laboratories, farm facilities, outbuildings, utilities, glass and pottery manufacturing, mining, communications and nucleonics.

Source of Ignition

The actual equipment, device or object which brings about ignition.

Cooking Equipment - includes stove, range, food warming appliance, deep fat fryer, broiler and portable cooking unit.

Heating Equipment - includes central heating unit, service water heater, space heater, fireplace, chimney, flue pipe and steam or hot water pipe.

Appliance and Equipment - includes dryer, air conditioning equipment, pressing iron and incinerator.

Smoker's Material and "Open" Flames - cigarettes, pipes, cigars and/or matches, lighters when used in conjunction with smoking. Includes matches and lighters not associated with smoker's material, candles, cutting torches, welding equipment and hot ashes.

Exposure - includes exposure from an attached or detached structure, lumber yard, open fire, forest, grass and brush.

Miscellaneous - includes internal combustion engine, heat treatment equipment, industrial oven, tar pot, fireworks, conveyors, commercial and industrial machinery and chemical reactions.

Directory

Head Office:
Room 701
10808 - 99 Avenue
Edmonton, Alberta
T5K 0G5
Phone: 427-8392

Regional Offices At:

Calgary:
Deerfoot Junction
Tower 3
1212 - 31 Avenue, N.E
T2E 7S8
Phone: 297-5759

Edmonton:
Room 303
Princeton Place
10339 - 124 Street
T5N 3W1
Phone: 427-4853

Lethbridge:
Room 360
Provincial Building
200 - 5 Avenue S.
T1J 4C7
Phone: 381-5483

Peace River:
Bag 900, Box 24
9621 - 96 Avenue
T0H 2X0
Phone: 624-6163

Red Deer:
2nd Floor
Provincial Building
4920 - 51 Street
T4N 6K8
Phone: 340-5157

St. Paul:
Room 407
Provincial Building
5025 - 49 Avenue
T0A 3A0
Phone: 645-6349

Alberta Fire Training School:
Drawer 388
Vermilion, Alberta
T0B 4M0
Phone: 853-5800